

A hand wearing a blue sleeve is shown from the side, holding a glowing yellow lightbulb. The background is a blurred city skyline at sunset, with a large white curved arrow above the hand.

ONWARD

A COMPILATION OF DOST TECHNOLOGIES FOR COMMERCIALIZATION

ABOUT THE COVER

The image of the bulb in an upward position represents the Department's innovations, products, and services being offered to the world. The title also signifies the DOST looking ahead and portraying its unceasing passion for creating and developing ideas into scientific, technological, and innovative solutions geared towards the benefit of the people.

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COMMERCIALIZATION

Commercialization refers to the process of deriving income or profit from technology, such as the creation of a spin-off company, licensing, or the sale of the technology and/or Intellectual Property Rights (IPRs).

This book is a compilation of the DOST technologies for Commercialization. We hope that entrepreneurs will take that step to start their business or further improve their operations with the locally-developed technologies of DOST.

ABOUT TECHNOLOGY TRANSFER DAY

The Technology Transfer Day (TTD) Project creates avenues and strategies that allows licensors such as the technology generators, innovators, and researchers to systematically transfer DOST funded and generated technologies to its desired end-users like entrepreneurs, investors, government agencies, local government units, and non-government organizations.

For more than three years, the TTD Project serves as a venue for licensors and end-users to negotiate the adoption and commercialization of technologies generated by DOST research and development institutes as well as technologies funded by the DOST sectoral councils.

Furthermore, the TTD Project aims to forge partnerships between these technology generators and business entities in the country. It envisions the adoption of Filipino-made technologies and innovations that are designed to empower local industries and advance the global competitiveness of Philippine products and services.





PROF. FORTUNATO DE LA PEÑA

DOST SECRETARY

FOREWORD

It is my great pleasure to greet you through this technology book, “Onward: a Decade of DOST Technologies.” These compilations come in three parts: For Commercialization, For Public Good, and For Extension.

The three-part book features various DOST funded and generated technologies from the year 2009 to present. It was not an easy task, but the DOST-Technology Application and Promotion Institute (DOST-TAPI) has once again been able to come through and publish this book.

The DOST-TAPI is the lead agency in the promotion and commercialization of various DOST technologies and services, and it is noteworthy that they took the challenge of implementing the Technology Transfer Day (TTD) Project. They have been constantly looking for and conducting strategies to promote the Department’s funded and generated technologies that in turn help our stakeholders improve their businesses processes and operations.

Everyone is encouraged to and take time in learning the different technologies. An entrepreneur or someone who is thinking of creating a start-up, will hopefully find the technology that matches his/her need perfectly in these compilations.



DR. ROWENA CRISTINA L. GUEVARA

**DOST UNDERSECRETARY
FOR RESEARCH AND DEVELOPMENT**

MESSAGE OF SUPPORT

First, I would like to congratulate the team behind the Technology Transfer Day (TTD) project under the Technology Application and Promotion Institute of the Department of Science and Technology (DOST-TAPI) for creating this material. I am glad that we can offer you an exquisite compilation of DOST technologies through this book.

With the mandate of the DOST to bring its technologies and services for the economic and social benefit of the public, the Office of the Undersecretary for Research and Development (R&D) works to realize this vision. I always say that Research and Development is not complete until it reaches the hands of its target markets or the people.

Our end goal has always been the translation of research output to useful information, products, and services. With these compilations of technologies, we aim to propagate these locally-developed technologies that are ready for use and commercialization.



ENGR. EDGAR I. GARCIA

DIRECTOR, DOST-TAPI

PREFACE

The Technology Application and Promotion Institute of the Department of Science and Technology (DOST-TAPI) is the lead agency in promoting and commercializing the various DOST technologies. As many of you know, we have been implementing different strategies to market the technologies created and developed by our local technology generators and inventors. From conducting events to producing materials such as these technology books, the DOST-TAPI continues to bring you more products and services that benefit the public.

This three-part book aims to provide in-depth information on the DOST technologies for our potential clients and adopters. With the added information of the technologies' Intellectual Property (IP) status and economic profiles, we hope that our potential clients and adopters would be encouraged to invest in the products and services that can improve their business processes and operations.

We have produced technology booklets before, but this book is one of our best yet. We truly endeavor to provide our stakeholders necessary information that can help them in their decision-making in terms of technology adoption and commercialization.

A COMPILATION OF
DOST TECHNOLOGIES FOR COMMERCIALIZATION

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TECHNOLOGY PROFILE

The following pages feature the profiles of various technologies under the different industry sectors.

A technology profile contains the following information:

- Brief description and photo of the technology
- Economic Profile
- Intellectual Property (IP) Profile
- Contact details of the Technology Generator and Technology Transfer and Business Development Officers (TTBDOs)

This book features the added portions of the economic and IP profiles of the technologies. An economic profile provides the costs and fees of the technologies to give the potential clients and adopters an idea of how much it would cost to invest in the technologies, while the IP profile provides value and potential growth for the technologies.

It is our hope that the added information will convince potential adopters to take a step and invest in the featured technologies.



AGRICULTURAL PRODUCTIVITY

Technologies developed for the agriculture, forestry, and natural resources sectors aim to increase and sustain agricultural productivity. These exceptional innovations are possible means to reduce labor and production costs and to increase the income of farmers, livestock raisers, and fisher folks.

The featured technologies in this industry category paved the way for use of effective plant growth mechanisms, environment-friendly and affordable agricultural inputs, enhanced methods for pest and disease management, improved production and postharvest processes, and mechanized agricultural equipment for better quality of agriculture and fishery products.

LOCAL RIDING-TYPE RICE TRANSPLANTER



The riding-type rice transplanter is suitable for transplanting inbred and hybrid rice. It can transplant two to six seedlings per hill at a planting depth of 2-6 cm, hill spacing of 12-18 cm, and row spacing of 30 cm.

It helps minimize labor cost compared to manual transplanting, which requires 20-25 persons/day/ha and takes only two persons to complete transplanting activities. It has a planting capacity of 2 ha/day with 24 hills/m² planting density.

Production Cost:	N/A
Investment Cost:	₱7,600,000.00
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	N/A
Target Market:	<i>Local agricultural machinery manufacturers or fabricators</i>

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT



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MECHANICAL FRUIT PICKER



The prototype has two types of mango picker: the pull type and trigger type picker which are both attached to bamboo poles. The trigger type was made up of a cutting device controlled by a trigger while the pull type picker was fabricated with double blades. The use of both pickers helps reduce number of fallen and mechanically damaged fruits.

Target Market: *Mango growers, local agricultural machinery manufacturers, and farmers' cooperatives or associations*

Type of IP offered

- Patent

Registration Number

- 1-2017-000199

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PELLETIZING MACHINE FOR GOAT FEEDS



The pelletizing machine is a portable pellet mill developed mainly from scrap materials. Appropriate for on-farm pellet production, it is used in pelletizing total mixed ration (TMR) for goats, has a milling capacity of 130 kg/hr and has a machine efficiency of 93.30% with fuel consumption of 0.17 L/hr.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱48,000.00 / machine
Target Market:	Local agricultural machinery manufacturers, farmers' cooperatives or associations, rice traders/millers, and seed producers

Types of IPs offered

- Utility Model
- Industrial Design

Registration Numbers

- 2-2017-000715
- 3-2017-050189

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PORTABLE MANGO SPRAYER



The longest reach of the Portable Mango Sprayer varies from 3.68 m. to 5.62 m, away from the two nozzles. Using the technology, the amount of chemical (solution) savings may be around 398 L/ha (100 trees).

The Portable Mango Sprayer has a more uniform spray deposition. It is also more effective in controlling thrips by as much as 18.23% mortality rate than using the conventional of only around 64.15%.

Target Market: *Mango growers, local agricultural machinery manufacturers, farmers' cooperatives or associations*

Type of IP offered

- Patent

Registration Number

- 1-2017-000326

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PROTOTYPE MECHANICAL CACAO SHELLER



The mechanical cacao sheller is a machine that can process roasted cocoa beans into cocoa nibs. The machine is able to break and winnow to separate nibs from the shell. The machine provides a time-saving and cost-effective solution to the painstaking process of separating cocoa nibs from its shells.

Target Market: Local agricultural machinery manufacturers, farmers' cooperatives or associations, and cacao traders/processors

Type of IP offered

- N/A

Registration Number

- N/A

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RICE COMBINE HARVESTER



An improved rice combine harvester with ground drive rubber tracks, triple airstream separation system, screw-type conveyor and hydraulic system for header and reel height adjustment. It has the ability to operate during wet harvest season with an increased capacity from 1.5 to 2 ha/day.

Production Cost:	N/A
Investment Cost:	₱9,600,000.00
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	N/A
Target Market:	<i>Local agricultural machinery manufacturers, farmers' cooperatives or associations, and rice traders/millers</i>

Type of IP offered

- N/A

Registration Number

- N/A

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RICE HARVESTER ATTACHMENT (RHA) FOR HAND TRACTORS



An implement that can be easily attached to and detached from common hand tractors, it helps reduce cost and manpower requirement for harvesting and threshing compared to manual process. Unlike dedicated combined harvester, the RHA has simple mechanisms, considerably lighter and makes use of the already available hand tractors common to most farmers. With a working width of 0.8 meters, the RHA can harvest and thresh up to 0.5 hectares per day. The RHA requires a 9-HP (minimum) diesel engine hand tractor and has a weight of 300 kg (excluding hand tractor).

Production Cost: ₱75,600.00 (estimated)

Investment Requirements:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱155,000.00 per unit

Target Licensee: Agri-machineries fabricator (preferably with capability on welding, machining, and electro-mechanical)

Target Market: Farmers' cooperatives, farmers, and LGUs

Types of IPs offered

- Invention
- Industrial Design

Registration Numbers

- 1-2017-000129
- 3-2020-020170

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RICE TRANSPLANTER ATTACHMENT (RTA) FOR HAND TRACTORS



An implement that can be easily attached to and detached from common hand tractors, it helps reduce cost and manpower requirement for rice transplanting compared to manual process. Unlike dedicated transplanters machines, the RTA has simple mechanism, helps increase field efficiency, and makes use of the already available hand tractors common to most farmers. The 4-row transplanter has the capacity to transplant rice seedlings up to 1.6 hectares/day at a planting distance of 30 cm x 20 cm. The planting depth can be adjusted to 3-5 cm. The RTA requires a 7-HP (minimum) diesel engine hand tractor and has a weight of 100 kg (excluding hand tractor).

Production Cost: ₱91,000.00 (estimated)

Investment Requirements:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱264,000.00 per unit

Target Licensee: Agri-machineries fabricator (preferably with capability on welding, machining, and electro-mechanical)

Target Market: Farmers' cooperatives, farmers, and LGUs

Types of IPs offered

- Utility Model
- Industrial Design

Registration Numbers

- 2-2016-000212
- 3-2020-020172

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RIDE-ON PRECISION SEEDER FOR WET DIRECT SEEDING



The ride-on Rice Precision Seeder is a local 8-row riding-type precision seeder that can have a seeding rate of 15 kg/ha to 30 kg/ha and at least 2 ha/day field capacity. It is suitable for both hybrid and inbred rice production.

Target Market:

Local agricultural machinery manufacturers, farmers' cooperatives or associations, rice traders/millers, and seed producers

Type of IP offered

- Utility Model

Registration Number

- 2-2017-000713

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SEA CUCUMBER DRYER



The hybrid dryer for sea cucumber is a mechanized system that was designed to be easily used by small-scale fisherfolks involved in the harvesting of sea cucumbers. It helps produce premium-grade, dried sea cucumber with reduced microbial content, improved shelf life, and no foul odor versus traditional drying. The hybrid dryer can be operated using solar heat, biomass burner, or electricity.

Target Market: Local agricultural machinery manufacturers and farmers' cooperatives or associations

Type of IP offered

- Utility Model

Registration Number

- 2-2014-000077

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SINGLE-BED POTATO DIGGER



The potato digger machine aims to mechanize the potato-harvesting to achieve a faster and more efficient digging process. This will be done by way of digging the potato tubers from the plant bed instead of manual digging.

Target Market: Local agricultural machinery manufacturers and farmers' cooperatives or associations

Type of IP offered

- Utility Model

Registration Number

- 2-2020-000045

CONTACT



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SUPERHEATED STEAM TREATMENT SYSTEM FOR STABILIZED BROWN RICE



Production Cost: ₱900,000.00 (including Boiler and Superheater Unit)

Investment Requirements:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: c/o MIRDC

Target Licensee: Fabricator (preferably with capability on welding and machining)

Target Market: Farmers' cooperatives, LGUs, and rice millers

For shorter-cycle production of stabilized brown rice, the Superheated Steam Treatment System (SSTS) consists of a stainless steel conveyorized steamer, 5-HP boiler, and superheater with a production capacity of 75 kg/hour and machine dimension of 2.75 m x 1.4 m x 1.7 m. The steaming and drying at a specific condition prolongs the shelf life of brown rice from one (1) to two (2) months to five (5) to nine (9) months and retains the sensory acceptability and quality of brown rice without use of chemicals.

Type of IP offered

- Invention

Registration Number

- 1-2016-000042

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SWEET SORGHUM JUICER



The Sweet Sorghum Juicer also known as Sugarcane Crusher is a portable, easy to maintain and versatile machine for juicing and crushing sweet sorghum and sugarcane. It can be attached to an electric motor or engine prime mover (3HP). The three rollers are adjustable for sweet sorghum or sugarcane processing. It has provision for attachment of wooden sled or "paragos" for easy transport. Parts are easily assembled and standard parts are locally available. Its capacity is 75-100 kg/hour. Base dimension: 662 mm x 1160 mm.

Production Cost: ₱345,000.00 (estimated)

Investment Requirements:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: c/o MIRDC

Target Licensee: Fabricator (preferably with capability on welding and machining)

Target Market: LGUs, NGOs, and food processors

Type of IP offered

- N/A

Registration Number

- N/A

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ANDALI® LAMP KIT FOR SWINE PED VIRUS



The Andali® RT-LAMP test kit is a quick, reliable, and cost-effective diagnostic tool for the early detection and control of Porcine Epidemic Diarrhea Virus (PEDV) in swine. The fast, early, and timely diagnosis of PED infection will greatly reduce production losses by minimizing mortalities associated with the disease.

Production Cost:	₱1,800.00/kit ₱22,834.00/mo for 13 kits/mo
Investment Cost:	₱274,000.00/year to produce 156 kits
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱2,900.00/kit (good for 10 tests)
Target Market:	Swine vet practitioners, diagnostic labs (govt & private), PVO, distributors of vaccine and disinfectants

Types of IPs offered

- Patent
- Trademark

Registration Numbers

- 1-2015-000198
- 4-2015-005999

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DARAG NATIVE CHICKEN



This features the native chicken breeding and hatchery management systems that would ensure stable supply of both breeder and slaughter native chickens for better performance and consistent quality in commercial quantities.

Target Market: *Poultry farmers/breeders and livestock producers*

Type of IP offered

- N/A

Registration Number

- N/A

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ETHNOBOTANICAL DEWORMER FOR NATIVE CHICKEN



This dewormer for native chicken is a formulation of ethnobotanicals against internal parasitism. The combined ethnobotanicals of ipil-ipil and betel nuts is most effective in treating roundworms of Darag native chicken which is comparable to the effect of a commercial dewormer.

Target Market: Poultry farmers/breeders and livestock producers

Type of IP offered

- Utility Model

Registration Numbers

- 2-2015-000491
- 2-2015-000492
- 2-2015-000493
- 2-2015-000494
- 2-2015-000495
- 2-2015-000496
- 2-2015-000497
- 2-2015-000498
- 2-2015-000499
- 2-2015-000500

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GOAT SEMEN EXTENDER (SemEx)



The semen extender was developed with soybean lecithin as the source of non-penetrating cryoprotectant instead of egg yolk. It is very effective in lengthening the viability of the goat spermatozoa under refrigerated storage from 48 to 110 hours and increasing post-thaw motility to as high as 60%.

Production Cost:	N/A
Investment Cost:	₱943,528.68
Licensing Fee:	₱300,000.00
Royalty Fee:	1% of the gross income of the products sold annually
Proposed Price:	₱250.00/ 100 g semen extender ₱250.00-₱300.00 / pack of frozen goat semen processed using the formulated goat semen extender
Target Market:	Goat breeder farm, artificial insemination technician, and goat raisers

Types of IPs offered

- Invention
- Utility Model

Registration Numbers

- 1-2017-050036
- 2-2017-050210
- 2-2012-000054

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HOG CHOLERA RT-LAMP KIT



A dry format RT-LAMP test kit which can differentiate the vaccine virus from the field classical swine fever (CSF) virus to serve as a surveillance tool for the swine industry.

Production Cost:	₱1,800.00 / kit; ₱15,222.68 / mo for 8 kits / mo
Investment Cost:	182,672.12 / year to produce 96 kits
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱3,500.00 / kit (good for 10 samples)
Target Market:	Swine vet practitioners, diagnostic labs (govt & private), PVO, distributors of vaccine and disinfectants

Types of IPs offered

- N/A

Registration Numbers

- N/A

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ITIK PINAS



Itik Pinas is a genetically superior breeder duck that has a higher average productive period of 70% in a year, compared with 55% for the old breed. The strains of Itik Pinas are products of organized breeding and selection that focus on the uniformity of physical characteristics, higher and predictable egg production performance, and consistent egg quality.

Itik Pinas can adapt to local conditions and can perform well even with simple housing and low-cost feeds.

Target Market: *Poultry farmers/breeders and livestock producers*

Type of IP offered

- N/A

Registration Number

- N/A

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JAMP[®] JUAN AMPLIFICATION WSSV DETECTION KIT



This diagnostic kit is a practical alternative to the conventional polymerase chain reaction (PCR) and other standard microbiological techniques in the detection of White Spot Syndrome Virus (WSSV).

It is 10x more sensitive for the detection of WSSV compared to PCR; aided by a heat block apparatus which replaces the expensive thermal cycler; and can generate results within one (1) hour. Due to its convenience, simplicity, and speed of detection, it can be used on-site.

Production Cost:	N/A
Investment Cost:	₱18,044,242.48
Licensing Fee:	₱34,214.48 (upfront)
Royalty Fee:	N/A
Proposed Price:	₱300 / test kit
Target Market:	Shrimp farmers/producers

Type of IP offered

- N/A

Registration Number

- N/A

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MEAT DETECTION KIT



The meat detection test kit is a DNA based technology for animal detection towards food safety and fair trade. It can be used in various meat authentication and identification including Halal authentication, food traceability, forensic investigation, and animal and research studies. Eleven (n=11) animal species can be detected such as pig, chicken, duck, cattle, buffalo, goat, horse, crocodile, dog, cat, and rat.

Proposed Price:
Target Market:

₱100,000.00 / box of 100 reactions
Food regulatory agencies of the Philippines and meat processors i.e. National Meat Inspection Service (NMIS) and Food and Drug Administration (FDA)

Type of IP offered

- Patent

Registration Number

- 1-2019-050095

CONTACT



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PROTEIN ENRICHED COPRA MEAL (PECM) AS FEEDS



It is the product of the bioprocessing of copra meal through solid-state fermentation to improve its nutritive value. It is high in valuable protein feed ingredient with crude protein (CP) of 36%-40%. It can be used to produce economical feed ration for swine and poultry because it has better nutrient profile and digestibility.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱18.00 / 250 kg
Target Market:	Individual/group farmers, crop plantations/industries, and fertilizer producers

Types of IPs offered

- Patent
- Trademark

Registration Numbers

- 1-2017-000081
- 4-2015-003282

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QUEEN PINEAPPLE BRAN



The Queen Pineapple Bran is a feed supplement for native chickens and other fowls made from queen pineapple wastes. It also makes the native chicken meat more flavorful and more tender.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱14.00 / kilogram
Target Market:	Poultry raisers and livestock producers

Type of IP offered

- Utility Model

Registration Numbers

- 2-2019-000091
- 2-2019-000354

CONTACT



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SFEED FORAGE-BASED PELLET FEEDS FOR GOAT



The SFEED (Sure Feed For Goats) pellet feeds are sun-dried, compressed, and nutritionally balanced mixture of forage and grain ingredients such as ipil-ipil, indigofera, rice bran, copra, and molasses. SFEED can enhance goats' milk production, performance, and growth.

Production Cost:	₱13.64 / kg considering a 92,100 kg production per year
Investment Cost:	₱3,300,000 Total Capitalization
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱21.87 / kg
Target Market:	Goat raisers, livestock producers

Type of IP offered

- Utility Model

Registration Numbers

- 2-2017-000715
- 2-2017-050272
- 2-2017-050273

CONTACT



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AUTOMATIC BOTTOM FEEDER FOR SHRIMP



The automatic bottom feeder administers feed at the cage bottom towards the surface. The feeding device can be remotely operated and monitored, thereby, optimizing feeding protocol and minimizing labor cost.

Production Cost:	N/A
Investment Cost:	₱6,464,000.00
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱95,000.00
Target Market:	Grow-out fish farms and shrimp farmers/producers

Type of IP offered

- Patent

Registration Number

- 1-2015-000432

CONTACT

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AUTOMATIC SURFACE FEEDER FOR MILKFISH AND SHRIMP



The automatic feeder is designed to distribute feeds at the water surface. The unit has a straight feed spreader to cover a larger area when feed is dispensed. Automatic feeders are used to reduce production costs (through reduced labor cost), improve product quality, and minimize waste by maximizing feed utilization.

Target Market:

Grow-out fish farms and shrimp farmers/producers

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT



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BIOSENSOR KIT FOR SHRIMP PATHOGENS



Affordable, rapid, and easy-to-use diagnosis of pathogen in shrimps which involves the use of genome-based lateral flow strip biosensor that has been developed as a diagnostic platform for White Spot Syndrome Virus (WSSV) and other shrimp pathogens. The test strips are field-ready, with an extraction and mobile device kit for first-level screening of pathogens on site.

Target Market: *Grow-out fish farms and shrimp farmers/producers*

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT



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TECHNOLOGY GENERATOR

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JUAN ALGAE MICROALGAL PASTE (AQUAFEEDS)



Production Cost:	₱1,296,000.00
Investment Cost:	₱1,780,000.00
Licensing Fee:	₱200,000.00
Royalty Fee:	10% of the gross sales
Proposed Price:	₱1,500.00 / kg
Target Market:	Hatcheries

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 (033) 315-8143

Microalgae are one of the most important microorganisms in aquaculture as high-value feeds for fish and shrimps hatcheries. However, microalgal production is limited and sometime insufficient due to its dependency on weather and culture techniques.

With Juan Algae Microalgal Paste, fisherfolk can use an instant feed as an alternative to on-site algal culture, especially when rations of live algae are insufficient. A concentrate of liquid microalgae cells which can be used in aquaculture nurseries as feeds, the paste is easy to apply and can be provided to the stock anytime. It can also be refrigerated for several months without decreasing its nutritional content.

Types of IPs offered

- Patent
- Utility Model

Registration Numbers

- 1-2018-050149
- 2-2016-001036

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MILKFISH AUTOMATIC FRY COUNTER



The Automatic Fry Counter is a laser fry counting that addresses the problem of laborious and inaccurate manual counting of milkfish fry. The design was able to minimize the stress during the counting process and reduce the time it takes to count the fry.

Trials of the counting mechanism have shown 95% accuracy with six pieces per second counting rate.

Target Market: Grow-out fish farms

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT



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PROBIOTIC FISH AND PRAWNS



The project aims to produce at commercial scale bitreated copra meal (BTCM) using the technology developed at BIOTECH and to market the BTCM for use as protein ingredient in animal and fish feeds.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	No LA yet
Royalty Fee:	No LA yet
Proposed Price:	₱200.00 / kg (ImmunoDefense Water Soluble and Aqua) ₱180.00 / kg (ImmunoDefense Premix)
Target Market:	Fish and prawn farmers

Type of IP offered

- Patent

Registration Number

- 1-2017-000306

CONTACT



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ABACA BUNCHY TOP VIRUS (ABTV) DIAGNOSTIC KIT



This diagnostic kit developed for the detection of Abaca Bunchy Top Virus (ABTV) is based on the principle of dot-ELISA (Enzyme Link Immunosorbent Assay). The primary component of the diagnostic kit is the antiserum generated to specifically detect the presence of the virus.

Production Cost:	₱502,748.74 (annual)
Investment Cost:	₱883,154.23
Licensing Fee:	N/A
Royalty Fee:	₱193,725.00 <i>(3% for the 1st 2 years & 5% for the succeeding operations)</i>
Proposed Price:	₱205.00 / kit
Target Market:	<i>Abaca nursery operators and farmers</i>

Type of IP offered

- Patent

Registration Number

- 1-2012-000193

CONTACT

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ACTICon® BIOPESTICIDE FOR CAVENDISH BANANA



ACTICon® is a biopesticide that uses the fungi actinomycetes as a biocontrol agent against the devastating *Fusarium* wilt-causing *Fusarium oxysporum* TR4 or more commonly known as the *Panama wilt* in Cavendish bananas. It was developed to serve as a replacement for the synthetic chemical pesticides that are currently being excessively used in the market, causing harm to the environment as well as to human and animal health.

Target Market: Banana farmers

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Types of IPs offered

- Patent
- Trademark

Registration Numbers

- 1-2017-000203
- 4-2017-015417

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BIOGROE®



BioGroe® is a solid-based microbial inoculant containing plant-growth-promoting-bacteria (PGPB) that induces root growth by producing plant hormones and providing nutrients in soluble form. The use of BioGroe with the recommended rate of chemical fertilizer provided a significant increase in the growth rate and productivity of high-value crops such as corn and rice.

Production Cost:	N/A
Investment Cost:	₱9,029,458.33 (based on business plan)
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱60.00 / 100 g pack
Target Market:	Individual/group farmers and crop plantations/industries

Types of IPs offered

- Patent
- Trademark

Registration Numbers

- 1-2007-000122
- 4-2015-001259

CONTACT



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CARRAGEENAN PLANT GROWTH PROMOTER



This plant growth promoter stimulates an increase in crop yield by up to 30%. The technology also provides resistance to the tungro virus and bacterial leaf blight. It helps crops survive typhoons by resisting lodging and stress from strong winds and rains. This technology is also environment friendly because it is non-toxic to plants, animals, and humans.

Production Cost / Investment Cost:

Will depend on the strategies and objectives of the business plan of a technology adoptor.

Licensing Fee / Royalty Fee:

Subject for negotiation between contracting parties and review of Fairness Opinion Board.

Proposed Price:

To be determined by the technology adoptor based on their profit and loss assessments and other business considerations.

Target Market:

Agricultural Inputs Manufacturers with nationwide distribution channels

Type of IP offered

- Patent

Registration Number

- N/A

CONTACT



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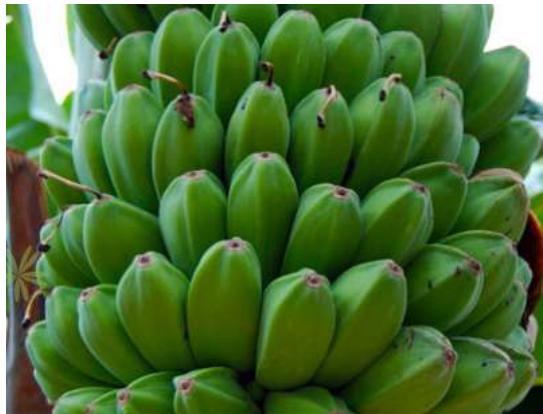


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DWARF SABA STRAIN



Dwarf saba banana strains have short stature (about four meter or less) and are early maturing (harvestable at 12-16 months). It intends to make saba banana production more profitable to small-hold farmers.

Production Cost:	N/A
Investment Cost:	₱3,250,000.00
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	N/A
Target Market:	<i>Banana farmers, individual/group farmers, crop plantations/industries</i>

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT

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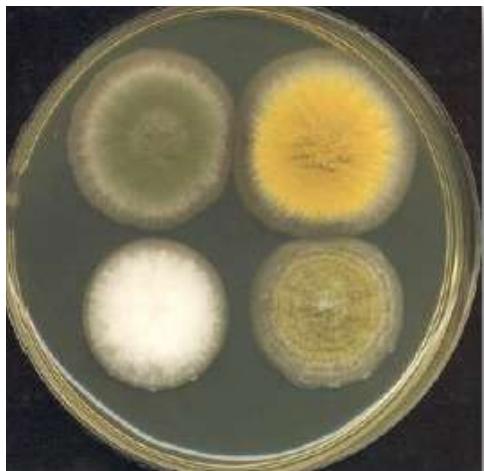
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EFFECTIVE MICROORGANISMS (EMS) AS BIOFUNGICIDE FOR RUBBER



Indigenous substrates containing effective microorganisms (EMs) as biofertilizers and biofungicides against *Phytophthora palmivora* of budded rubber seedlings.

Target Market: Rubber farmers, individual/group farmers, and crop plantations/industries

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT



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FERTIGROE® CONTROLLED-RELEASE N, P, AND K FERTILIZERS



A controlled-release nanoformulation each of the N, P and K fertilizers which is an alternative to the conventional fertilizers. The products utilized the inherent properties of nanotechnology, such as controlled release of N, P and K nutrients and greater surface area for increased uptake hence maximizing inputs, reducing unnecessary farming costs. Increased nutrient uptake to about 50% was achieved using FertiGroe® in sugarcane and corn. Further efficacy tests are being conducted in rice, banana, vegetables, coffee, and cacao.

Production Cost:	N/A
Investment Cost:	₱13,900,000.00
Licensing Fee:	N/A
Royalty Fee:	15% Net of Sales
Proposed Price:	N/A
Target Market:	Individual/group farmers and crop plantations/industries

Types of IPs offered

- Patent
- Trademark

Registration Numbers

- 1-2017-000358
- 4-2017-002525

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HI-YEAST BIOCONTROL AGENT FOR FRUITS AND VEGETABLES



Hi-YEAST prevents fruit and vegetable decay caused by pathogens during postharvest handling. It is designed as an alternative and/or supplement to reduce the use of chemicals in nature. It may be applied to fruits and vegetables, specifically to banana, tomato, calamansi, mango, garlic, nuts, and onion.

Production Cost:	N/A
Investment Cost:	₱44,300,000.00
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	N/A
Target Market:	<i>Individual/group farmers, crop plantations/industries</i>

Types of IPs offered

- Patent
- Trademark

Registration Numbers

- 1-2017-000229
- 4-2017-014760

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HORMOGROE



A controlled release nanoformulation of plant hormones derived from naturally occurring plant growth-promoting bacteria.

Production Cost:	₱28,253,358.06
Investment Cost:	₱54.20/pack
Licensing Fee:	No LA yet
Royalty Fee:	No LA yet
Proposed Price:	₱300.00/pack
Target Market:	Cassava, coffee, sweet pepper, banana, and cacao farmers

Type of IP offered

- Patent

Registration Number

- 1-2017-050071

CONTACT



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MICROMIX BIOSTIMULANT FOR BELL PEPPER AND BITTER GOURD



MicroMix is a biostimulant composed of a consortium of bacteria that enhances the growth of crops, particularly of bell pepper and bitter gourd. Developed as a response to the excessive use of chemical stimulants and fertilizers, the application of MicroMix results in a better root system, improved plant growth, higher yield, and reduced chemical fertilizer use.

Production Cost:	N/A
Investment Cost:	₱9,050,000.00 (UPLB Rate)
Licensing Fee:	(UPLB Rate)
Royalty Fee:	₱300.00 / 200 g pack
Proposed Price:	Individual/group farmers, crop plantations/industries
Target Market:	

Type of IP offered

- Invention

Registration Number

- 1-2017-000215

CONTACT



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MYKOPLUS BIOFERTILIZER



Target Market: Individual/group farmers and crop plantations/industries

CONTACT  



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MykoPlus biofertilizer is a breakthrough agricultural solution in improving crop production by significantly reducing the amount of required synthetic fertilizer application in farm operations while improving soil condition. It capitalizes on naturally-occurring microbial organisms such as mycorrhiza nitrogen fixers and phosphorus solubilizers bacteria to enhance nutrient uptake of plants.

It is intended to help farmers by lowering the total cost of soil fertilization as well as allowing a more sustainable agricultural practice through the preservation of the soil's natural ecosystem. MykoPlus promises to serve as a source of affordable and sustainable biofertilizer that can improve the yield of farmers and fortify the survivability of crops to withstand various pernicious environmental factors. It is a stand-alone product in the form of powder which is applied to seeds as coating.

Type of IP offered

- Patent

Registration Number

- 1-2017-000246

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NUTRIO® BIOFERTILIZER FOR EGGPLANT AND SUGARCANE



Nutrio® is a biofertilizer that uses endophytic bacterial inoculants which promote nitrogen fixation and production of plant growth of eggplant and sugarcane. It is a foliar spray biofertilizer in powder form suspended in water that can be directly sprayed on growing crops.

Target Market: Individual/group farmers and crop plantations/industries

Type of IP offered

- Patent

Registration Number

- 1-2017-000199

CONTACT



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PROTEIN-BASED “DIPSTICK” KIT FOR PHILIPPINE ‘CARABAO’ MANGO



The Philippine “Carabao” Mango Detection Kit is a technology designed based on Competitive dot-ELISA colorimetric assay principle used to discriminate true-to-type Philippine “Carabao” Mango varieties from other mango cultivars.

Production Cost:	₱3,632,140.66 (annual)
Investment Cost:	₱5,929,890.73
Licensing Fee:	N/A
Royalty Fee:	₱1,312,500.00 (3% for the 1st 2 years & 5% for the succeeding operations)
Proposed Price:	₱1,250.00 / kit
Target Market:	Bureau of Plant Industry-accredited mango nurseries and small mango farmers, growers, and processors.

Type of IP offered

- Patent

Registration Number

- N/A

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SIPBIO (SCREENING INDIGENOUS PLANT AS BIOPESTICIDE)



Indigenous plants were used in the development of biopesticide formulations for vegetables, sugarcane pests, and diseases. Plant extracts with significant biopesticide results against insects, bacteria, and fungi were processed into prototype products. These are in the form of spray mixture using plant oil and emulsifiers. It can also be in powder form, when appropriate, by adding cornstarch and other appropriate additives.

Production Cost:	₱53.75 / 250 ml
Investment Cost:	N/A
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱350.00 / 250 ml bottle
Target Market:	Farmers and commercial growers

Type of IP offered

- Utility Model

Registration Number

- 2-2018-050523

CONTACT



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TRICHODERMA MICROBIAL INOCULANT (TMI)



The Trichoderma Microbial Inoculant (TMI) is used to control crop plant diseases caused by soil-borne fungal pathogens. It also serves as a biofertilizer which digests and decomposes soil organic matter and releases mineral nutrients needed for crop growth.

Production Cost:	N/A
Investment Cost:	₱2,500,000.00 to ₱7,00,000.00 (theoretically spread in five years)
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	N/A
Target Market:	<i>Individual/group farmers and crop plantations/industries</i>

Type of IP offered

- Patent

Registration Number

- 1-2002-000771

CONTACT



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COFFEE GREENHOUSE SOLAR DRYER



A greenhouse-type solar dryer retrofitted with biomass furnace for coffee beans capable of operating at low temperature with no source of electricity. It intends to provide an alternative method for drying coffee beans instead of directly exposing to sunlight.

Target Market: *Coffee growers*

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT

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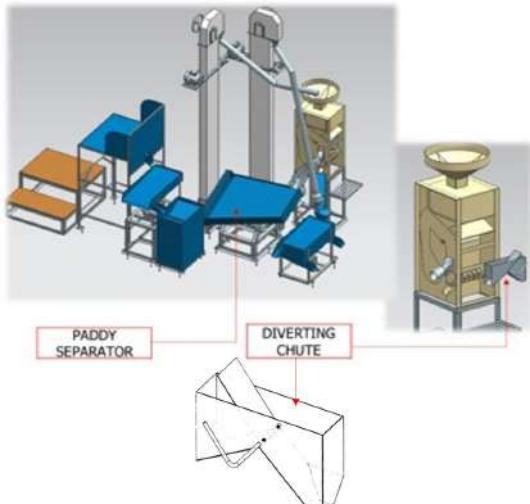
TECHNOLOGY GENERATOR

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COMPACT RICE MILL DIVERTING CHUTE



Technical consultancy assistance in retrofitting existing rice mills that will enable rice millers to produce brown and white rice. The compact rice mill diverting chute, developed by DOST-MIRDC, will be incorporated to the existing rice mill. Assessment will be conducted on the possible use of auxiliary machines such as single layer paddy separator, bucket elevator, and others. At the end of the retrofitting activities, the rice miller can divert from well-milled rice to brown rice production with a shift of the lever. A 6-10% increase in mill recovery is expected.

Production Cost: Consultancy fee + cost of auxiliary machines

Investment Requirements:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: c/o MIRDC

Target Licensee: Agri-machineries fabricator
(preferably with capability on welding,
machining, and electro-mechanical)

Target Market: Farmers' cooperatives, farmers, LGUs,
and rice millers

Type of IP offered

- Utility Model

Registration Number

- 2-2014-000738

CONTACT

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TECHNOLOGY GENERATOR

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COMPACT ULTRA IMPELLER RICE MILL



The impeller-type rice mill machine uses impeller as its hulling mechanism. It speeds up the milling process from its milling capacity of 230 kg/hour. It is capable of producing both white and brown rice with milling recovery comparable with rubber roll type but higher by 5% as compared with "Kiskisan". The design is suitable for village-level operation.

Production Cost:	N/A
Investment Cost:	₱4,100,000.00
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱275,000.00 - ₱320,000.00 / rice mill system
Target Market:	Local agricultural machinery manufacturers, farmers' cooperatives or associations, and rice traders/millers

Type of IP offered

- Patent

Registration Number

- 1-2016-000256

CONTACT

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FAR-INFRARED GRAIN DRYER



A new rapid-drying technology for paddy using far-infrared technology. It has an average milling recovery of 69.5% and head rice yield of 47%.

Production Cost:	₱812,000.00
Investment Cost:	₱10,000,000.00
Licensing Fee:	₱10,000.00
Royalty Fee:	3% of Unit Price
Proposed Price:	₱1,082,802.00 / unit
Target Market:	Local agricultural machinery manufacturers, farmers' cooperatives or associations, rice traders/millers, and seed producers

Type of IP offered

- Utility Model

Registration Numbers

- 2-2017-000716
- 2-2017-000725

CONTACT



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GRAS “GENERALLY REGARDED AS SAFE” COATINGS FOR VEGETABLES



Coatings derived from phytochemical extracts can be generally regarded as safe (GRAS) to enhance the shelf life of highly perishable vegetables. The application of extracts extended the shelf life and sustained the free radical scavenging activity (FRSA) of coated vegetables.

Production Cost:	N/A
Investment Cost:	₱4,500,000.00
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	N/A
Target Market:	<i>Individual/group farmers and crop plantations/industries</i>

Type of IP offered

- Utility Model

Registration Numbers

- 2-2017-000717
- 2-2017-000718
- 2-2017-000719
- 2-2017-000720
- 2-2017-000721

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MANGIFETEK INTEGRATED POSTHARVEST FACILITY FOR MANGO



The integrated postharvest facility for mango has six units to operate the six (6) postharvest stages. It includes the automatic table sorter for sorting; controlled wash tank for washing; automated hot water treatment; automated, controlled industrial fan for cooling; automated weight classifier to classify according to size and weight; and table for packing.

Production Cost:	N/A
Investment Cost:	₱7,600,000.00
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	N/A
Target Market:	<i>Mango farmers, growers, and processors, individual/group farmers, crop plantations/industries</i>

Type of IP offered

- Patent

Registration Number

- 1-2014-000310

CONTACT



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MECHANICAL CARROT WASHER CUM SORTER



The carrot washer is a machine that operates continuous movement of individual carrots on the washing cylinder with casing to prevent damages on the carrot roots and to protect the petioles.

Target Market:

Local agricultural machinery manufacturers and farmers' cooperatives or associations

Type of IP offered

- Utility Model

Registration Number

- 2-2020-000046

CONTACT



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MECHANICAL PEANUT SHELLER-SORTER



A peanut sheller with sorter machine separates the peanut kernel from pods and sorts the kernels into three sizes. It has a capacity of 150 kg/h with an overall shelling performance that is above the standard set by the PAES (Philippine Agricultural Engineering Standards).

Production Cost:	₱48,466.00 (<i>materials + labor + utilities</i>)
Investment Cost:	N/A
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱80,000.00 / machine
Target Market:	Peanut growers or processors, individual/group farmers, and crop plantations/industries

Type of IP offered

- Utility Model

Registration Number

- 2-2016-000443

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MECHANICAL PEANUT STRIPPER AND SORTER



The peanut stripper with pod sorter machine is used to separate the peanut pods from the vines, removing the dust, stacks and foreign materials, and sort the pods into three sizes. It has a capacity of 117 kg/h depending on the pod-and-vine ratio and/or the variety and season of harvesting.

Production Cost:	₱49,291.00 (materials + labor + utilities)
Investment Cost:	N/A
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱100,000.00 / machine
Target Market:	Peanut growers or processors, individual/group farmers, and crop plantations/industries

Type of IP offered

- Utility Model

Registration Number

- 2-2016-000444

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MECHANIZED COFFEE DEPULPER



The medium-scale mechanical coffee depulper is a portable and low-cost technology that can significantly reduce damage to coffee cherries during the depulping process thereby attaining undamaged coffee parchment that leads to high-quality coffee beans.

This cheap and affordable technology has an increased capacity and pulp parchment separation efficiency by at least 20%.

Production Cost:	₱130,786.50
Investment Cost:	N/A
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	N/A
Target Market:	Coffee growers

Type of IP offered

- N/A

Registration Number

- N/A

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NON-DESTRUCTIVE MOISTURE METER FOR COFFEE



Known to few, moisture content greatly affects the quality of coffee beans. Safe levels of moisture content need to be accurately monitored and measured during the processing stage like drying, hulling, roasting, and storage to attain excellent quality coffee beans.

The Coffee Moisture Meter is non-destructive, inexpensive, and simple yet provides accurate results in determining the moisture content (MC) of green coffee beans and parchment coffee.

Production Cost:	₱16,201.22
Investment Cost:	N/A
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱19,736.51
Target Market:	Coffee growers

Type of IP offered

- N/A

Registration Number

- N/A

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DISASTER RESILIENCE

The Philippines has always been prone to natural disasters and calamities such as super typhoons, earthquakes, and landslides. The inevitability of these incidents has prompted researchers to develop technologies and innovations that will prevent or at least minimize the damage and losses caused by natural disasters and calamities.

The featured technologies for disaster resilience enable relevant authorities and institutions to use today's advancements and innovations for natural hazards monitoring and supporting mitigation efforts for better disaster risk and reduction management.

ADVANCED REMOTE DATA - ACQUISITION UNIT (arQ)



The arQ is a low power device installed in all ASTI-developed weather stations. It can store, record, and acquire data via integrated sensors that can read air pressure, temperature and humidity; wind speed and direction; rainfall amount, duration and intensity; soil moisture and temperature; solar radiation; and sunshine duration. Data is transmitted via GSM/GPRS and/or satellite and may be viewed on philsensors.asti.dost.gov.ph.

Production Cost:	₱15,000.00
Investment Cost:	₱2,370,000.00 (for a five-year licensing period)
Licensing/Royalty Fee:	₱100,000.00 minimum per year or ₱5,000.00 per unit sold, whichever is higher.
Proposed Price:	₱25,000.00 per unit/station
Target Market:	LGUs, academic and research institutions, policy-creating and implementing bodies, DRRM-related organizations; NGOs, and private companies

Types of IPs offered

- Copyright
- Trademark
- Utility Model

Registration Numbers

- 4-2015-00011728
- 2-2012-000525
- N2018-442
- O2018-2818
- N2018-365
- N2018-364
- N2018-307
- N2018-305
- N2018-306

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AGROMETEOROLOGICAL STATION (AGROMET)



The Agromet Station gathers and records sunshine duration; soil moisture, electrical conductivity, and temperature; rain amount, duration, and intensity; air pressure and temperature; and wind speed and direction. It automatically send the collected data via text message and/or satellite to a central database server on a determined interval. The collected data may be accessed through agromet.da.gov.ph or can also be retrieved manually through a USB flash drive.

Production Cost:	₱510,120.00 (approximately as of July 2019)
Investment Cost:	₱4,869,921.74 (for a three-year licensing period)
Licensing/Royalty Fee:	₱300,000.00 minimum per year or 5% of the gross sales, whichever is higher.
Proposed Price:	₱929,000.00 per unit/station
Target Market:	LGUs; academic and research institutions; policy-creating and implementing bodies; DRRM-related organizations; NGOs; and private companies

Type of IP offered

- Copyright

Registration Number

- O2018-2818

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AUTOMATED RAIN GAUGE (ARG) STATION



The ARG station is a stand-alone system that can gather and record rain amount, rain intensity, rain duration, and air pressure and automatically send data via text message and/or satellite to a central database server on a predetermined interval. The collected data may be accessed through a philsensors.asti.dost.gov.ph website or can also be retrieved manually through a USB flash drive.

Production Cost:	₱59,120.00 (approximately as of July 2019)
Investment Cost:	₱482,890.31 (for a three-year licensing period)
Licensing/Royalty Fee:	₱33,000.00 minimum per year or 5% of the gross sales, whichever is higher.
Proposed Price:	₱108,000.00 per unit/station
Target Market:	LGUs, academic and research institutions, policy-creating and implementing bodies, DRRM-related organizations, NGOs, and private companies

Types of IPs offered

- Copyright
- Industrial Design

Registration Numbers

- I2013-86
- I2013-87
- H2013-69
- H2013-70
- A2012-2182
- 3-2013-000614

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AUTOMATED WEATHER STATION (AWS)



The AWS gathers and records wind speed and direction; air temperature, humidity, and pressure; and rain amount, duration, and intensity through a multiparameter sensor and a tipping bucket. The AWS automatically send the collected data via text message and/or satellite to a central database server on a determined interval. The collected data may be seen through philometers.asti.dost.gov.ph or can also be retrieved manually through a USB flash drive.

Production Cost:	₱278,120.00 (approximately as of July 2019)
Investment Cost:	₱3,805,397.30 (for a three-year licensing period)
Licensing/Royalty Fee:	₱250,000.00 minimum per year or 5% of the gross sales, whichever is higher.
Proposed Price:	₱507,000.00 per unit/station
Target Market:	LGUs; academic and research institutions; policy-creating and implementing bodies; DRRM-related organizations; NGOs; and private companies

Type of IP offered

- Copyright

Registration Numbers

- N2018-305
- N2018-306
- A2012-2183

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TANDEM STATION



The Tandem Station is made of a mechanical tipping bucket and an ultrasonic sensor that measures rainfall parameters and water level. It is a combination of the ARG and WLMS. The collected data may be accessed through philsensors.asti.dost.gov.ph or can also be retrieved manually through a USB flash `drive.

Production Cost:	₱109,120.00 (approximately as of July 2019)
Investment Cost:	₱439,973.51 (for a three-year licensing period)
Licensing/Royalty Fee:	₱30,000.00 minimum per year or 5% of the gross sales, whichever is higher.
Proposed Price:	₱199,000.00 per unit/station
Target Market:	LGUs; academic and research institutions; policy-creating and implementing bodies; DRRM-related organizations; NGOs; and private companies

Types of IPs offered

- Copyright
- Industrial Design

Registration Numbers

- I2013-91
- I2013-90
- 3-2013-000613
- H2013-71
- H2013-72

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UNIVERSAL STRUCTURAL HEALTH EVALUATION AND RECORDING SYSTEM (USHER)



Production Cost: N/A
Investment Cost: N/A
Licensing Fee: Upfront Fee ₱300,000
Royalty Fee: 4%
Proposed Price: ₱580,000 / Unit
Target Market: Private and government building owners and managers (high-rise buildings, commercial, industrial, hospital, government and school buildings)

The Universal Structural Health Evaluation and Recording System (USHER) is a 24/7 building structure health monitoring system composed of an advanced accelerograph, a web portal system and a mobile application. The technology can be installed in buildings, bridges, and other critical structures, allowing engineers and managers to monitor structural integrity and performance under seismic events. It ensures economical and hassle-free compliance with government regulations. It is the only Filipino made system of its kind in the country. Unlike other foreign made products, USHER has streamlined and tailored the system to the local market, making it remarkably lower in cost while still offering the most advanced solution to ensure public safety and business continuity.

DISASTER RESILIENCE

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Type of IP offered

- Patent

Registration Number

- 1-2017-000162

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WATER LEVEL MONITORING STATION (WLMS)



The data collected by the WLMS are sent via text message and/or satellite to a central database server on a determined interval. The collected data may be seen through philsensors.asti.dost.gov.ph or can also be retrieved manually through a USB flash drive.

Production Cost:	₱101,620.00 (approximately as of July 2019)
Investment Cost:	₱830,028.98 (for a three-year licensing period)
Licensing Fee:	₱56,000.00 minimum per year or 5% of the gross sales, whichever is higher.
Proposed Price:	₱185,000.00
Target Market:	LGUs; academic and research institutions; policy-creating and implementing bodies; DRRM-related organizations; NGOs; and private companies

Types of IPs offered

- Copyright
- Industrial Design

Registration Numbers

- I2013-88
- I2013-90
- 3-2013-000615
- H2013-73
- H2013-74

CONTACT

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MULTI-SHELL NEUTRON SPECTROMETER



Portable apparatus that determines energy distribution of neutron radiation in facilities and environment.

DISASTER RESILIENCE

Production Cost / Investment Cost:

Will depend on the strategies and objectives of the business plan of a technology adoptor.

Licensing Fee / Royalty Fee:

Subject for negotiation between contracting parties and review of Fairness Opinion Board.

Proposed Price:

To be determined by the technology adoptor based on their profit and loss assessments and other business considerations.

Target Market:

- 1) Operators of Linear Accelerators (LINAC) and Positron Emission Tomography (PET) cyclotron medical facilities
- 2) Medical physicists working with neutron fields
- 3) Operators of reactor facilities

Type of IP offered

- Patent

Registration Number

- N/A

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DOST-PNRI

FLOOD EARLY WARNING STATION



The warning station is composed of three (3) sirens that are positioned at 120 degrees apart to cover omnidirectional direction of the sound. The sirens have different preloaded voice tones for four (4) different alert levels depending on the river capacity: alert (40%); alarm (60%); critical (80%); and recession (40%). The warning station can be triggered manually or via web to notify residents in flood-prone areas for an impending harm.

Production Cost:	₱134,320.00 (approximately as of July 2019)
Investment Cost:	₱2,049,979.76 (for a three-year licensing period)
Licensing/Royalty Fee:	₱139,000.00 minimum per year or 5% of the gross sales, whichever is higher.
Proposed Unit Price:	₱245,000.00 per unit/station
Target Market:	LGUs; academic and research institutions; policy-creating and implementing bodies; DRRM-related organizations; NGOs; and private companies

Type of IP offered

- Copyright

Registration Numbers

- N2018-442
- N2018-364

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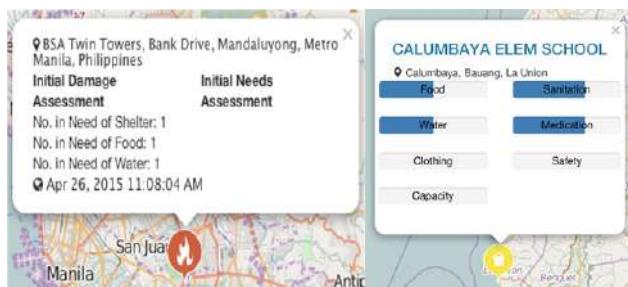


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PROJECT E-BAYANIHAN: A NATIONWIDE WEB - MOBILE BASED SYSTEM FOR PARTICIPATORY DISASTER MANAGEMENT



A system that provides ordinary citizens a web and mobile based application to report disaster experiences and provide OCD and other stakeholders on real time experiences of ordinary citizens before, during and after disaster.

Target Market: LGUs/government

Type of IP offered

- N/A

Registration Number

- N/A

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TENT SYSTEM



The Tent system was developed to provide immediate shelter to people displaced by calamity or disaster. It can serve as temporary shelter until such time the disaster victims can rebuild and return to their homes. The tent is easy to assemble, sturdy and durable. It can withstand wind and provides a relatively cooler interior during hot weather. Variants: Ridge 22 (22 sq. m.) for 5 occupants, Ridge 32 (32 sq.m.) for 7 occupants, and Ridge 50 (50 sq.m.) for 11 occupants or multipurpose.

Production Cost: ₱790,000.00 (for total units:
Ridge 22-7 units, Ridge 32-7 units,
Ridge 50-5 units; estimated only)

Investment Requirement:
c/o MIRDC
Licensing Fee: For Negotiation
Royalty Fee: For Negotiation
Proposed Price: c/o MIRDC
Target Licensee: LGU / Fabricator
Target Market: LGUs, and NGOs

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT



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TSUNAMI EARLY WARNING SYSTEM (TEWS) - ALERTING STATION



Composed of a siren and a beacon, this solar powered alerting station can be triggered manually or via web to notify communities of incoming tsunami. The alerting station can be triggered by visiting the tews2.asti.dost.gov.ph.

Production Cost:	₱137,820.00 <i>(approximately as of July 2019)</i>
Investment Cost:	₱935,703.75 <i>(for the three-year licensing period)</i>
Licensing/Royalty Fee:	₱63,000.00 minimum per year or 5% of the gross sales, whichever is higher.
Proposed Price:	₱251,000.00 per unit/station
Target Market:	LGUs; academic and research institutions, policy-creating and implementing bodies, DRRM-related organizations, NGOs, and private companies

Type of IP offered

- Copyright

Registration Numbers

- O2018-2817
- N2018-365

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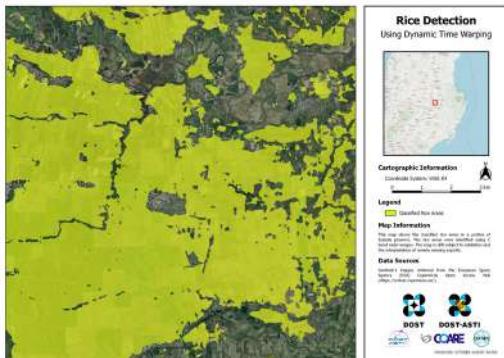


<IT> DEVELOPMENT

In this progressive age, one of the key components in a country's development is Information Technology (IT). The government has recognized the role and application of IT to different industries as a driver to the economic growth of the Philippines. Therefore, there is continued support for research, development, and production of technologies that could facilitate easier access to information and better data management to sustain the growth of businesses and enterprises.

The technologies featured in this category range from virtual reality game, vehicular charging system, and electronic sensors and devices that easily capture and analyze data for fast and effective monitoring systems among others.

AI4Mapping



The AI4Mapping employs Artificial Intelligence and other advanced image processing methodologies, automated to generate situational maps from earth observation data (e.g. satellite imageries).

The technology is under the R&D initiatives of The Remote Sensing and Data Science: DATOS Help Desk which operates with the data generated from satellite datasets to come up with on-demand mapping and analytics using RS/GIS tools. The team provides remote sensing and data science applications support to critical activities on disaster mitigation, analysis, and advice with partners from the government, academe, and private agencies.

Production Cost: ₱4,265,839.00

Investment Cost: ₱11,066,415.00

Licensing Fee/ Royalty Fee:

₱273,894.00 minimum per year
or 7.5% of the gross sales,
whichever is higher

Proposed Price:
₱120,000.00 (Flood, road, flood,
hazard crop, land covering map)
₱360,000.00 (data/application for
disaster/emergency response)
₱15,000.00 (flood, road,
flood hazard mapping)
₱7,500.00 (crop, land cover mapping)
₱30,000.00 (data/application for
disaster emergency response)

Target Market:
Government, private companies,
and academe/research institutes

Types of IPs offered

- Patent
- Trademark

Registration Numbers

- 1-2020-040048
- 1-2020-050067
- 4-2019-019961
- 4-2019-019962
- N2019-625
- N2019-626

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CONTACTLESS APPREHENSION OF TRAFFIC VIOLATORS ON A 24-HOUR BASIS AND ALL-VEHICLE DETECTION SYSTEM (CATCH-ALL)



The Contactless Apprehension of Traffic Violators on a 24-Hour Basis and All-Vehicle Detection System (CATCH-ALL) is an integration of vision and machine learning systems that offers better performance in visual monitoring, recording, and evidence gathering tasks.

Target Market: LGUs, government agencies such as DOTr and MMDA

Type of IP offered

- N/A

Registration Number

- N/A

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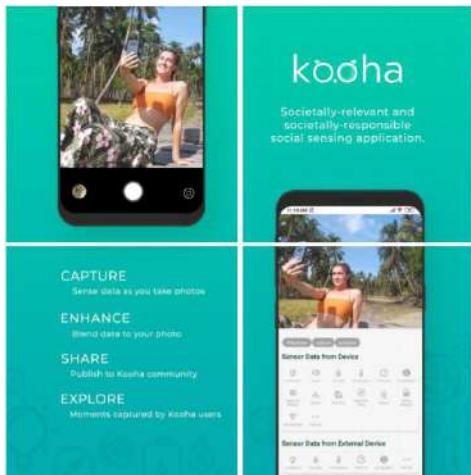
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KOOHA: A SOCIAL SENSING NETWORK APPLICATION



A cost-effective IoT platform that enables real-time participatory photo and sensor data collection using smartphones and mobile devices. Photos and sensor data collected will be used to draw out insights and generate new knowledge and technologies that can be used across sectors.

Production Cost:	₱2,212,082.86
Investment Cost:	₱2,212,082.86
Licensing Fee:	Waived for first batch of licensees
Royalty Fee:	7.5% of gross sales to be paid per year
Proposed Price:	₱2,212,082.86 per technology
Target Market:	Transport network companies, telecommunication companies, business sectors, policy-makers, decision-makers, public sectors, environmental sectors, e-commerce companies, conglomerate companies, local government units and state universities and colleges, and big data analytics company

Types of IPs offered

- Patent
- Trademark

Registration Numbers

- 1-2020-050279
- 4-2020-506920
- 4-2020-506924
- 4-2020-506930
- 4-2020-506941
- 4-2020-506942
- 4-2020-506944
- 4-2020-506953
- 4-2020-506954
- 4-2020-506955
- 4-2020-506960
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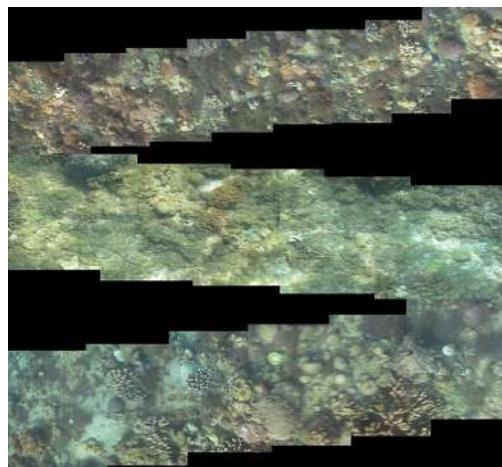


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AUTOMATED RAPID REEF ASSESSMENT SYSTEM (ARRAS)



The Automated Rapid Reef Assessment System (ARRAS) provides a fast and diverless method of coastal survey and mapping services to create a permanent visual records of the marine environment.

ARRAS is composed of two main technologies: Teardrop and Kiko&Stitch. The Teardrop is a diverless banca-towable platform which captures underwater video, while Kiko&Stitch is a software developed for automatic video stitching to create geotagged visual records of coral reefs. With this system, a stitched underwater imagery map can be generated at a rate of 33 km of coastline per day.

Production Cost:	Not applicable
Investment Cost:	Not applicable
Licensing Fee:	By negotiation
Royalty Fee:	By negotiation
Proposed Price:	Not applicable
Target Market	<i>LGUs and government agency such as DENR</i>

Types of IPs offered

- Copyright
- Trade Secret

Registration Number

- N2018-115

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FISH-I



Fish-I is a cost-effective and efficient method of performing fish census using a camera and fish video software. Similar to a fish census, it generates data on species count, biomass, and fish size and population. Using a hardware-software tandem, it semi-automates the process, allowing for rapid reef fish assessment which would otherwise require a high level of knowledge and expertise in marine sciences.

Fish-I uses artificial intelligence for fish visual census and rapid reef fish assessment.

Production Cost:	By subscription
Investment Cost:	Not applicable
Licensing Fee:	Not applicable
Royalty Fee:	Not applicable
Proposed Price:	Not applicable
Target Market	NGOs, LGUs, and companies

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Type of IP offered

- Patents

Registration Numbers

- 1-2016-000469
- PID201904325
- BR 11 2019 011080
- MX/a/2019/006944 (US)

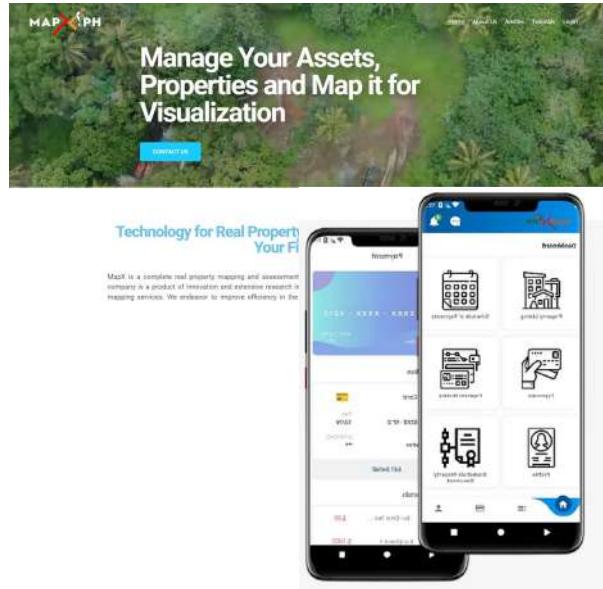
TECHNOLOGY GENERATOR

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MapX



A platform that provides end-to-end solutions for the LGU and real property owners in real property tax mapping and assessment.

Target Market:

Real estate government agencies, property owners, and real estate agents

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT



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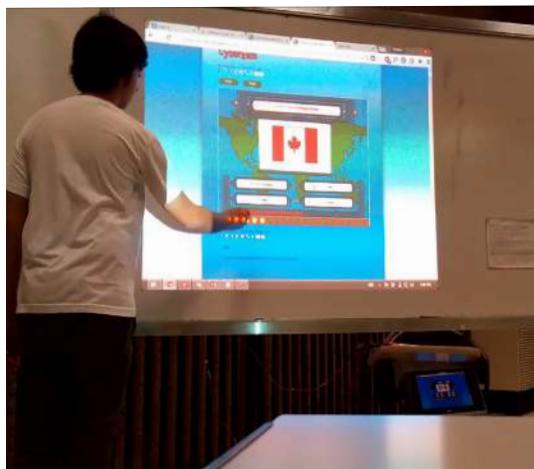
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SMART SURFACE



An electronic sensor system that can convert virtually any flat surface into an interactive interface. Also, its system is composed of a number of sensors and a central controller and more affordable and robust than smart board. Smart Surface boasts for its distinct features that can compete with the already existing products in the market. Its content can be customized according to the client's preference; it is portable; it can be installed in existing surfaces; and most importantly, it is low-cost with speedy after-sales support in cases of replacement, repair services, or technical help.

Production Cost:	Not applicable
Investment Cost:	Not applicable
Licensing Fee:	By negotiation
Royalty Fee:	By negotiation
Proposed Price:	Not applicable
Target Market	Schools and corporations

Type of IP offered

- Utility Model

Registration Number

- 2-2015-000807

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VERSATILE INSTRUMENTATION SYSTEM FOR SCIENCE EDUCATION RESEARCH (VISSER)



To upgrade the Science, Technology, Engineering, and Mathematics (STEM) strand, VISSER is a science kit that allows student to conduct over 50 experiments in biology, chemistry, physics, and engineering.

The VISSER's hardware consists of analog and digital sensors that act as a central hub to which different sensors can be connected and controlled to perform various science experiments. Its software includes data storage, control, interface and analysis tools. As a handheld device, it can be used without a computer and can be powered by battery or power bank.

Production Cost:	Not applicable
Investment Cost:	Not applicable
Licensing Fee:	By negotiation
Royalty Fee:	By negotiation
Proposed Price:	Not applicable
Target Market:	Schools, LGUs, etc

Types of IPs offered

- Copyright
- Trademark
- Trade Secret

Registration Number

- 4-2016-0010943

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X-LIPAD'S DREAM (DRONES REIMAGINED FOR EDUCATIONAL APPLICATION AND MODIFICATION) SYSTEM



Target Market: The primary target market of the business are educational institutions in the Philippines. The end users of the products and services of X-LIPAD are University and Senior High School students, educators, and researchers mainly in the field of Engineering, Computer Science, and Information Technology but are not limited to these courses only.

CONTACT



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The Drone Starter Kit is a cost competitive kit that can be modified and upgraded (hardware and software) to fit different applications (e.g. Search and Rescue, Disaster Prevention, Mitigation and Preparedness, and Infrastructure Monitoring.)

The DREAM System will be the stepping stone to revolutionize the Philippine Educational System using UAV Technology. These customizable drones feature a unique assembly and autonomous build that were developed under a learn-and-play concept, which opens up an exciting platform for students to learn the principles of programming and engineering. The X-LIPAD DREAM System includes the following:

- 5 Drone Starter Kits
- 2-Day Training for Educators
- Drone Programming Software
- Modules and Lesson Plans
- Online Access to Modules

Types of IP offered

- Utility Model

Registration Number

- PH 2-2019-000876

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MSME COMPETITIVENESS

The Micro, Small, and Medium Enterprises (MSMEs) play a significant role in terms of its potential to spur economic growth in the Philippines. To realize its full growth potential, the MSMEs need to innovate and improve its production and manufacturing processes that will eventually enable them to develop better quality and globally competitive products.

The featured technologies for MSME competitiveness focus on creating economic opportunities for entrepreneurs by enabling them to adopt innovative products for commercialization and to use better systems to improve their manufacturing practices and business operations.

CLINN-GEM



CLINN-GEM is applied in an environment-friendly gold-copper mineral processing plant that employs practical technology so that it will no longer require cyanide or mercury to dissolve rock and soil from raw gold or copper. It helps improve the mining operations of small-scale miners. The CLINN-GEM technology offers a faster and cheaper way of extracting gold from the ore compared to the traditional way.

Production Cost:	<i>Not applicable</i>
Investment Cost:	<i>Not applicable</i>
Licensing Fee:	<i>By negotiation</i>
Royalty Fee:	<i>By negotiation</i>
Proposed Price:	<i>Not applicable</i>
Target Market:	<i>Small scale mining community</i>

Type of IP offered

- Patents

Registration Numbers

- 1-2018-050159
- 1-2018-050174
- PCT/PH2019/000003
- PCT/PH2019/000005

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DIY BAMBOO SHELTER



A semi-permanent shelter made of modular bamboo panels, which can be assembled within 3-4 days by four workers. When assembled, it has a 24 sq m floor area that can accommodate a living room, bedroom, toilet, and bath sink. The prefabricated parts can fit in a 6wheeler truck. The roof and walls are made of bamboo and coco lumber and the flooring is made of concrete.

Production Cost:	₱150,000.00 (complete set) ₱130,000.00 (w/o toilet & bath) ₱120,000.00 (w/o toilet & finishing) ₱105,000.00 (shell w/ utilities) ₱90,000.00 (shell w/o utilities) ₱75,000.00 (shell w/o concrete slabs)
Proposed Price: Target Market:	₱250,000.00 for complete set resort owners, LGUs

Type of IP offered

- N/A

Registration Number

- N/A

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CACAO ROASTING EQUIPMENT



This machine is a locally-designed cacao bean roaster that is LPG-fueled, easy-to-operate with temperature control feature, and made of food-grade stainless steel.

Production Cost:	₱224,000.00
Investment Cost:	₱1,724,000.00
Licensing Fee :	₱171,000.00
Royalty Fee:	3% of gross sales
Proposed Price:	₱585,000.00 / unit
Target Market:	Fabricators

Type of IP offered

- Utility Model

Registration Number

- 2-2017-000008

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SALT IODIZING MACHINE



This technology is a continuous screw-type Iodizing Machine that allows processors to uniformly infuse salt with iodine in the range of 30 to 70 ppm, as required by Food and Drug Administration (FDA). The Salt Iodizing Machine has a 750 kg/hr capacity.

Production Cost:	₱1,797,000.00
Investment Cost:	₱2,282,000.00
Licensing Fee:	₱40,000.00
Royalty Fee:	5% of gross sales on the second year of the agreement
Proposed Price:	₱212,577.00/unit
Target Market:	Salt processors

Type of IP offered

- Utility Model

Registration Number

- 2-2016-050022

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SALT WASHER



The Salt Washer is designed to increase purity of salt to at least 97% (dry weight), as required by RA 8172 or An Act for Salt Iodization Nationwide (ASIN). The machine can be operated continuously at 1250 kg/hr, and it utilizes a saturated brine as washing medium, which can be filtered and recycled back to the unit for reuse.

Production Cost:	₱1,870,000.00/year
Investment Cost:	₱1,690,000.00
Licensing Fee:	₱55,000.00
Royalty Fee:	5% of gross sales on the second year of the agreement
Proposed Price:	₱178,311.00/unit
Target Market:	Fabricator

Type of IP offered

- Patent

Registration Number

- 1-2019-000386

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SPIN DRYER



Spin Dryer can reduce the moisture content of salt to less than 8% as mandated by RA 8172 or An Act for Salt Iodization Nationwide (ASIN). In contrary to the traditional dripping and sun drying, this equipment will allow manufacturers to process salt even in humid and rainy conditions. Spin Dryer can be process up to 75 kg/batch.

Production Cost:	₱2,396,000.00/year
Investment Cost:	₱1,836,000.00
Licensing Fee:	₱65,000.00
Royalty Fee:	5% of gross sales on the second year of the agreement
Proposed Price:	₱222,083.00/unit
Target Market:	Fabricator

Type of IP offered

- N/A

Registration Number

- N/A

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BROWN RICE NUTTY-FRUITY BAR®



Investment Cost:	₱3,400,000.00 <i>(includes production equipment and working capital)</i>
Licensing Fee:	₱50,000.00
Proposed Price:	₱25.00 / pack (25 g)
Target Market:	General consumers and health-conscious individuals

Ready-to-Eat Brown Rice Bar is shelf-stable for six (6) months. It was developed as a potential functional food product utilizing brown rice as the main ingredient. Two (2) packs of 25 grams each provide 220 calories, 20 g sugar, and 34 g carbohydrates. It provides minerals and vitamins such as phosphorus, iron, zinc, manganese, vitamin B1, and vitamin B2. It is lightweight, handy, and ready-to-eat without preparation.

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BUBOD FOR TAPUY PRODUCTION



Bubod or binukbok is the local name for the starter culture used in the preparation of tapuy or rice wine. Its production was improved by using a mixture of NFA rice and cassava flours with pure culture suspensions of mold (*Rhizopus oryzae*) and yeast (*Saccharomyces cerevisiae*) instead of the traditional rice flour with mixed culture of yeast, bacteria, and fungi.

Production Cost:	₱322,668.00 / year
Investment Cost:	₱1,232,000.00
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱60.00 / kg
Target Market:	Rice farmers/processors and wine makers

Type of IP offered

- Utility Model

Registration Numbers

- 2-2014-000768
- 2-2014-000769
- 2-2014-000772
- 2-2014-000773
- 2-2014-000774

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BY-PRODUCTS FROM CACAO WASTES



Since cacao waste utilization was one of the identified problems in the cacao production, PHiLMech developed technologies that would utilize the high volume of cacao waste such as cacao pod husk, drippings, and hull. These cacao wastes are processed into different types of products like wine, vinegar, health drinks, ethanol, and fuel briquettes.

Production Cost:	N/A
Investment Cost:	₱3,500,000.00
Licensing Fee:	Very minimal
Royalty Fee:	Very minimal
Proposed Price:	Cacao Wine - P200/ L Cacao Vinegar - P100/ L Cacao Briquettes - P40/ kg Briquetting Machine - P80,000/ unit Hygienic Fermentary Box - P50,000/ unit
Target Market:	Adopters that will process cacao pods into wine, vinegar, fermented dried beans and briquettes.

Type of IP offered

- Utility Model

Registration Numbers

- 2-2018-000218
- 2-2017-000924
- 2-2018-001334
- 2-2019-000105
- 2-2018-000219

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CHEVON VALLEY CANNED PRODUCTS



Canned chevon products come in three different recipes namely, Kalderetang Kambing, Adobong Kambing, and Kilawing Kambing. Canning of local delicacies is a way of promoting native dishes and consequently, capturing the bigger market for chevon. It also ensures longer storage and stability of the product and easy transport.

Production Cost:	N/A
Investment Cost:	₱1,086,851.00
Licensing Fee:	₱300,000.00 as approved by DOST-FOB as of January 2020
Royalty Fee:	1% of the gross sales of the products annually
Proposed Price:	₱120.00 / can (wholesale price)
Target Market:	Restaurant owners, food retail stores, households, and chevon-consumers

Type of IP offered

- Utility Model

Registration Numbers

- 2-2011-000227
- 2-2011-000229
- 2-2011-000230

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COCONUT SAP SUGAR PRODUCTION



Innovation in the coconut sap sugar production include the collection system for the sap and standardization of the processing procedure thereby minimizing the rejects and sustaining the quality of the finished product. For sap collection, sanitized flexible pouches were used to minimize the exposure of sap to air contaminants. Then, the ITDI-designed double jacketed kettle is used for cooking and processing the sap into sugar.

Production Cost:	N/A
Investment Cost:	No updated computation
Licensing Fee :	N/A
Royalty Fee:	N/A
Proposed Price:	No updated computation
Target Market:	Coconut farmers/processors

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT

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TECHNOLOGY GENERATOR

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DIETARY FIBER POWDER FROM CALAMANSI WASTES



The process involves production of dietary fiber powder from calamansi waste, which can be used as a functional ingredient for food and supplement production for digestion and weight management.

Production Cost:	₱4,555,000.00 / year
Investment Cost:	₱1,365,000.00
Licensing Fee :	₱47,800.00
Royalty Fee:	1 to 2% of gross sales on the second year of the agreement
Proposed Price:	₱13.00 / 100 g pouch
Target Market:	Food supplement producers and calamansi processors

Type of IP offered

- Utility Model

Registration Number

- 2-2011-000066

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DON MARIANO CHEVON PRODUCTS IN RETORT POUCH



Chevon food products, namely, pinapaitan, sinampalukan, chevon bulgogi, and sisig are packed in retortable stand up pouches, processed through water retort.

Production Cost:	₱1,373,507.00 for Year 1
Investment Cost:	₱8,268,000.00
Licensing Fee:	₱5,000.00 / product
Royalty Fee:	3% of gross sales
Proposed Price:	₱150.00 - ₱200.00/ 250 g pouch of chevon products
Target Market:	Chevon and non chevon eaters and health-conscious individuals

Type of IP offered

- Utility Model:

Registration Numbers

- 2-2016-000269
- 2-2016-000270
- 2-2016-000267
- 2-2016-000268
- 2-2014-000558
- 2-2014-000557
- 2-2014-000557
- 2-2014-000558
- 2-2019-000358
- 2-2019-000357
- 2-2019-000355
- 2-2019-000356

CONTACT



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DOST TABLEA (CHOCOLATE LIQUOR IN A BAR)



A choco liquor bar made from local fermented cocoa beans roasted to achieve the best quality chocolate beverage. The product is compliant to the Philippine National Standard quality specifications for Philippine Tablea.

Production Cost:	₱1,423,000.00
Investment Cost:	₱2,000,000.00
Licensing Fee:	₱50,000.00
Royalty Fee:	3% of net sales
Proposed Price:	₱58.00 / 100 g pack
Target Market:	Tablea producers

Type of IP offered

- Utility Model

Registration Number

- 2-2016-001103

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DRUM-DRIED FRUIT FLAKES



The production of Drum-dried fruit flakes allows liquid with low viscosities like fruit purees such as mango, banana, and makapuno to dry out at relative low temperatures over rotating drums producing dried, crunchy sheets of flakes. With this innovative process, there are less chances of contamination and reduced loss of nutrient content.

Drum-dried fruit flakes may be marketed as ready-to-eat snacks or intermediate materials for other products, such as ice cream and pastries.

Production Cost:	₱7,840,000.00
Investment Cost:	₱10,750,000.00
Licensing Fee:	DD Mango - ₱56,500.00 DD Banana - ₱64,600.00 DD Makapuno - ₱65,000.00
Royalty Fee:	3% of net sales
Proposed Price:	₱38.00 / 50 g pack
Target Market:	Food manufacturers

Type of IP offered

- Utility Model

Registration Numbers

- N/A

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TECHNOLOGY GENERATOR

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ETAG PRODUCTS FROM NATIVE PIGS



Etag is an ethnic and traditional meat delicacy of the Cordilleras processed through curing of the meat of native pig with salt and then either sundried or smoked for preservation. It is popularly used as a flavor enhancer in different viands.

Today, "Etag" is a popular term used for salted and dried pork.

Target Market: Meat processors and food retailers

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT



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FOOD COLORANT FROM MONASCUS PURPUREUS 5001



This Food Colorant is produced through a process of fermenting improved strains of *Monascus purpureus* (a species of mold) to produce food-grade red pigments applicable to food, beverage, and cosmetics products.

Production Cost:	₱865,000.00 / year
Investment Cost:	₱1,280,000.00
Licensing Fee:	₱20,000.00
Royalty Fee:	3% of gross sales
Proposed Price:	₱89.00 / kilogram
Target Market:	Food colorant manufacturers

Type of IP offered

- N/A

Registration Number

- N/A

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FREEZE DRYING TECHNOLOGY



Freeze drying is a method to dehydrate heat-sensitive materials through sublimation. It preserves nutrients, color, aroma, and flavor of the commodity.

Freeze-dried products are shelf-stable and light in weight, has good rehydration characteristics, and may be used as ready-to-eat snacks or ingredient in various food products. The ITDI's freeze-dried products are available in avocado, carrot, corn, cabbage, and mango.

Production Cost:	₱960,000.00
Investment Cost:	₱1,530,000.00
Licensing Fee :	FD Avocado - ₱47,000.00
Royalty Fee:	3% of net sales
Proposed Price:	₱974.00 / 30 g canister
Target Market:	Food manufacturers

Type of IP offered

- Utility Model

Registration Number

- N/A

CONTACT



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FRUITECT



Coating that delays ripening of fruits and is made from biomaterials derived from wastes of agricultural and food processing sectors.

Production Cost:

₱680.43 / liter

Investment Cost:

₱8,488,934.20

Licensing Fee :

N/A

Royalty Fee:

1% (1st year),
5% (2nd and 3rd year),
10% (4th and 5th year)
of Gross Sales

Proposed Price:

₱2,184.18 / liter

Target Market:

Fruit and vegetable farmers

Type of IP offered

- Patent

Registration Numbers

- 1-2017-000141
- 1-2017-000080

CONTACT



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GOUREMET SALTS



Production Cost:	₱13,427,000.00 / year (Seaweed flavor)
Investment Cost:	₱3,622,000.00 (Seaweed flavor)
Licensing Fee:	₱20,000.00 per flavor
Royalty Fee:	1 to 2 % of gross sales on the second year of the agreement
Proposed Price:	₱65.00 / 250 g pouch
Target Market:	Salt Processors

The ITDI Gourmet Salts has flavored and smoked salt:

1.) Flavored Salt is infused with umami tastants (savory flavor) from tiger prawn shrimp heads, shiitake mushroom, and sea grapes.

2.) Smoked Salts is processed in very low temperature that results to possibly lower or no Polycyclic Aromatic Hydrocarbons (PAH) - a known carcinogen that results from the traditional smoking techniques. This gives a unique smoky and sour flavor to any meal. Available flavors for smoked salts are mango, guava, and tamarind.

Type of IP offered

- Patent

Registration Number

- 1-2019-050301

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IODINE-RICH DRINKING WATER (TUBIG TALINO®)



Iodine Rich Drinking Water is made from a blend of purified or ordinary potable water and Water Plus (I_2), which helps prevent iodine deficiency disorders (IDD).

A 5 ml of Water Plus (I_2) can make 20 liters of iodine-rich drinking water, enough to meet 33% of iodine requirement of the body.

Investment Cost:	₱770,000.00
Licensing Fee :	₱15,000.00
Proposed Price:	₱35.00-₱40.00 /5 gallon
Target Market:	General consumers and health-conscious individuals

Type of IP offered

- Trademark

Registration Number

- 4-2017-014110

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IRON FORTIFIED RICE (SUPERICE®)



Iron Fortified Rice (IFR) is enriched rice made by blending Iron Rice Premix (IRP) with ordinary rice using an efficient blending machine. IFR can be washed and cooked like ordinary rice. A day's intake of 4 to 6 cups of cooked IFR will meet more than 50% of the iron requirement of the body.

Investment Cost:	₱3,800,000.00
Licensing Fee:	₱15,000.00
Proposed Price:	₱45.00/kilogram
Target Market:	General consumers and health-conscious individual

Type of IP offered

- Trademark

Registration Numbers

- 4-2013-008659
- 4-2013-008958

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IRON RICE PREMIX (SUPERICE®)



Iron Rice Premix (IRP) is a grain-like structure or kernel made from a blend of rice flour and iron, produced or manufactured by hot extrusion technology added to ordinary rice to increase its iron content. IRP contains a minimum of 400 mg iron per 100 grams of premix.

Licensing Fee:	₱50,000.00
Proposed Price:	₱300.00/kilogram
Target Market:	General consumers and health-conscious individual

Type of IP offered

- Trademark

Registration Numbers

- 4-2013-008659
- 4-2013-008958

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KAMOTEA



Ready-to-Drink Sweet Potato Leaf Extract Beverages (SPLE) or KamoTea contains vitamins, minerals and high amounts of antioxidants. It consists of the following ingredients: Sweet Potato Leaf Extract, Calamansi Honey Concentrate and Earl Grey Black Tea (for black tea flavored variant).

Production Cost:	Not applicable
Investment Cost:	Not applicable
Licensing Fee:	By negotiation
Royalty Fee:	By negotiation
Proposed Price:	Not applicable
Target Market:	Consumers

Type of IP offered

- Utility Model

Registration Number

- 2-2019-050434

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LAING MIXED VEGETABLE DISH



Part of DOST-FNRI's ethnic food collection, the Laing Mixed Vegetable Dish is a canned ready-to-eat combination of taro (gabi) stalks, coconut milk, and spices. The consumption of vegetables helps increase intake of vitamins, minerals, and fiber.

Investment Cost: ₱1,000,000.00
Licensing Fee: ₱50,000.00
Proposed Price: ₱38.00 / can
Target Market: General consumers and health-conscious individuals

Type of IP offered

- Utility Model

Registration Number

- 2-2015-000781

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MICROBIAL RENNET



It is the ingredient responsible for solidifying the milk without a change in taste, creaminess, and sweetness of milk during cheese manufacturing.

Production Cost:

Liquid: ₱8,767.45 for 24 liters
Granulated: ₱13,475.68 for 28.8 kg
(based on 2017 prices)

Investment Cost:

₱22,126,000 (inclusive of land and equipment, based on 2017 assumptions for valuation)

Licensing Fee:

₱300,000.00

Royalty Fee:

5% of Gross Sales

Proposed Price:

₱750.00 per liter (liquid rennet)

Target Market:

₱1500.00 per kg (granulated rennet)

Cheese producers

Type of IP offered

- Patent

Registration Number

- 1-2010-000135

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MICRONUTRIENT GROWTH MIX (MGM)



Investment Cost: ₱3,000,000.00
Licensing Fee: ₱100,000.00
Proposed Price: ₱3.00 / pack
Target Market: Children
(6 months to 5 years old)

Micronutrient Growth Mix (MGM) is a multi-nutrient powder enriched with vitamins A, C, B1, B9, and B12, zinc, iron, iodine, and calcium. It is packed in small sachets (2 g) containing a blend of micronutrients in powder form, which can easily be added or sprinkled to a wide range of complementary foods or home recipes to address vitamins and mineral deficiencies.

The product is specially formulated for infants and children 6 months to 5 years old. It is at this stage where complementary food is essential to attain needed amounts of micronutrients for proper growth and development.

MSME
COMPETITIVENESS

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Types of IPs offered

- Utility Model
- Trademark

Registration Numbers

- 2-2014-000620
- 4-2015-001715

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MONASCUS



Production Cost:	₱45.00 / kg
Investment Cost:	₱8,700,000.00
Licensing Fee:	No LA yet
Royalty Fee:	No LA yet
Proposed Price:	₱60.00 / kg
Target Market:	Food, beverage, and cosmetics

The researchers proposed this project as the next stage towards the commercialization of the DOST-PCIEERD assisted colorant project. The optimization of at least 800L scale production of *Monascus purpureus* M1018 red colorant was already established by the researchers. The safety of use of the colorant product for food and other application is well documented following the CODEX tests required by US FDA for food colors. Various applications and uses of the produced Monascus red color were developed and currently an approved trademark with Freedom to Operate and two filed process patents were undertaken.

Type of IP offered

- Patent

Registration Numbers

- 1-2018-000044
- 1-2018-000045

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NIPA SAP SUGAR



This technology is an optimized and sanitized process of converting nipa sap into sugar. The pilot production facility of Nipa sugar operates at 60 kg per day. The Nipa sugar is found to be a good alternative for cane sugar since it has low glycemic index.

Production Cost:	₱1,008,000.00
Investment Cost:	₱831,000.00
Licensing Fee:	₱28,500.00
Royalty Fee:	3% of net sales
Proposed Price:	₱128.00 / kilogram
Target Market:	Nipa sap processors and food manufacturers

Type of IP offered

- N/A

Registration Number

- N/A

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PACKAGING FOR FROZEN DURIAN



This technology is a food packaging method that uses multiple high-barrier packaging materials and vacuum packaging technique to retain the strong flavor and aroma of frozen durian for at least one year.

Production Cost:	₱2,992,000.00 / year
Investment Cost:	₱1,540,000.00
Licensing Fee:	₱46,800.00
Royalty Fee:	3% of gross sales
Proposed Price:	₱105.00 / 500 g pouch
Target Market:	Durian processors, pasalubong centers, and MSMEs

Type of IP offered

- Utility Model

Registration Number

- 2-2017-050091

CONTACT



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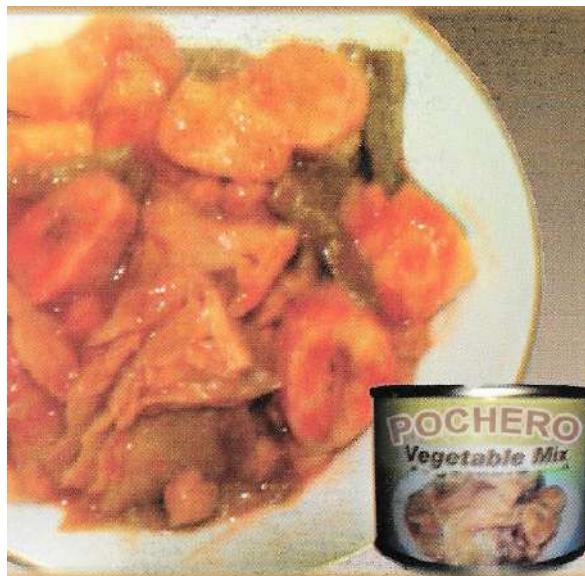
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POCHERO VEGETABLE MIX



Pochero Vegetable Mix is part of DOST-FNRI's ethnic food collection. It is a canned ready-to-eat combination of potato, cabbage, saba, Baguio beans, and spices. Pre-cooked meat or fish can be added during reheating or food preparation. The consumption of vegetables helps increase intake of vitamins, minerals, and fiber.

Investment Cost:	₱1,000,000.00
Licensing Fee :	₱50,000.00
Proposed Price:	₱38.00 / can
Target Market:	General consumers and health-conscious individuals

Type of IP offered

- Trade Secret

Registration Number

- N/A

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PRODUCTION OF RICE WINE USING ITDI BUBOD



The process of rice wine production was standardized using the newly improved “bubod”. This innovation has also solved many problems encountered by tapuy producers, such as short shelf life, low yield, higher production cost, adulteration, inconsistency in the quality of bubod, and packaging-related problems.

Target Market: Wine producers

Type of IP offered

- N/A

Registration Number

- N/A

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QUEEN PINEAPPLE MULTI-USE MARINADE



The Queen Pineapple (QP) Marinade and Sauce is a perfect blend of QP pure extract, aromatic herbs, and spices that will turn meat, fish, and shrimps into something delicious and healthy. The bromelain contained in the crude extract help tenderize the meat. The rest of the ingredients balance its natural richness.

This QP product is also more affordable than commercially available marinades.

Proposed Price: ₱25.00 / 150 ml pack
Target Market: Food processors

Type of IP offered

- Utility Model

Registration Numbers

- 2-2019-000090
- 2-2019-000353

CONTACT



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READY-TO-DRINK GREEN MANGO JUICE WITH NATA



Green Mango-Nata Ready-to-Drink Juice is a mixture of sweetened nata de coco, natural fruit juice from green mango-carabao variety, sugar, vitamin A, and vitamin C. One serving of 200 ml green mango-nata juice provides 100% vitamin C, 33% vitamin A, and 5% energy from the Recommended Energy Nutrient Intake (RENI) of adult reference man. Tropical fruits with fiber have great demand in both local and international trade due to increasing trends in ethnic and healthy foods. It is attractive to people of all age levels. As a convenient product, it can fit the lifestyle of busy individuals.

Investment Cost: ₱1,000,000.00
Licensing Fee : ₱50,000.00
Proposed Price: ₱80.00 / 350 ml
Target Market: General consumers and health-conscious individuals

Type of IP offered

- Utility Model

Registration Number

- 2-2019-500067

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READY-TO-DRINK RIPE MANGO JUICE WITH NATA



Ripe Mango-Nata Fruit Drink is a mixture of sweetened nata de coco, natural fruit juice from the ripe mango - carabao variety, sugar, and vitamin C. The product contains dietary fiber from nata de coco, cellulosic biomass development from aerobic fermentation of coconut milk/water. Fiber is recommended for the prevention of management of constipation, obesity, diabetes, hypertension, and other conditions.

Investment Cost:	₱1,000,000.00
Licensing Fee:	₱50,000.00
Proposed Price:	₱80.00/351 ml
Target Market:	General consumers and health-conscious individuals

Type of IP offered

- Trade Secret

Registration Number

- N/A

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DOST-FNRI

READY-TO-EAT COMPLEMENTARY FOOD (MOMSIE®)



The Ready-to-Eat Complementary Food is specially designed to meet the nutritional requirements of children ages 6 months to 3 years old. It is high in energy with a rich, nutty chocolate flavor that children will definitely love. One pack of 25 grams provides 578 calories, 40 g fat, and 12 g protein. It provides minerals and vitamins such as folate, iron, calcium, zinc, vitamin A, and vitamin C.

Investment Cost:	₱2,500,000.00
Licensing Fee :	₱100,000.00
Proposed Price:	₱8.81 / pack
Target Market:	Children (6 months to 3 years old)

Types of IPs offered

- Utility Model
- Trademark

Registration Numbers

- 2-2014-000670
- 4-2014-009601
- 4-2014-009600

CONTACT



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DOST-FNRI

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DOST-FNRI

SAGIP NUTRIPOWDER EMERGENCY FOOD RESERVE (EFR)



Emergency Food Reserve (ERF) is an energy food in powder form made from cassava, malunggay, camote, and monggo. The taste is bland, but ERF is nutritious and filling.

Production Cost:	N/A
Investment Cost:	₱890,000.00
Licensing Fee:	Waived
Royalty Fee:	3% of net sales
Proposed Price:	₱153.00 / kilogram
Target Market:	Farmers, NGOs, and food manufacturers

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT

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SPRAY DRYING TECHNOLOGY



Spray drying is the process of converting liquid into powdered products that is shelf-stable, easier to handle, store, and transport due to reduced volume and weight.

The ITDI's spray-dried products are cucumber, egg white, pork-based blood stew mix, bile juice, pinakurat, bagoong balayan, and calamansi.

Production Cost:	₱1,280,000.00 / year
Investment Cost:	₱1,460,000.00 (SD Pork Blood)
Licensing Fee:	SD Cucumber - ₱39,500.00 SD Eggwhite - ₱35,000.00 SD Pork Blood Stew - ₱39,000.00 SD Bile Juice - ₱38,000.00 SD Pinakurat - ₱35,900.00 SD Bagoong Balayan - ₱33,500.00
Royalty Fee:	3% of net sales
Proposed Price:	₱1,008.00 / kilogram
Target Market:	Meat processors and food manufacturers

Type of IP offered

- Utility Model

Registration Numbers

- N/A

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TECHNOLOGY GENERATOR

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STABILIZED BROWN RICE (KAYUMANGGI™)



The Stabilized Brown Rice (SBR)/unpolished rice is a freshly milled paddy/rough rice with improved shelf life from 1-4 months to 4-9months. The rice is subjected to optimum combination of saturated steaming and oven drying for a certain period of time and temperature which inactivates the inherent enzymes present in the bran layer of brown rice/unpolished rice to improve its shelf life.

Investment Cost:	₱600,000.00-₱2,000,000.00
Licensing Fee:	₱50,000.00
Royalty Fee:	2%
Proposed Price:	₱45-₱50 per kg
Target Market:	General consumers, Health-conscious individuals

Type of IP offered

- Patent
- Trademark

Registration Numbers

- 1-2012-000394
- 4-2016-010216

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THERMAL PROCESSING TECHNOLOGY USING WATER RETORT



The Water retort is a heating equipment designed for in-packaged batch pasteurisation or commercial sterilisation of food packed in both rigid (tin cans, glass bottles) and flexible packaging (boilable or retortable pouches, trays and plastic bottles). The application of an adequate thermal process results in the safety and shelf-stability of the products. Examples of products that can be processed in the water retort include bottled sardines, ready-to-eat meals or food in pouches, and other canned food items.

Production Cost:	₱2,000,000.00/year
Investment Cost:	₱800,000.00
Licensing Fee:	Chili in Oil - ₱22,500.00 Rice Milk Shake - ₱79,000.00
Royalty Fee:	3% of net sales
Proposed Price:	₱13 per 30 ml bottle
Target Market:	Food industries, MSMEs

Type of IP offered

- Utility Model

Registration Number

- 2-2016-000861

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VACUUM FRYING TECHNOLOGY



Vacuum Frying is a frying method wherein food is deep fried under a condition of very low pressure (partial vacuum) which affords the use of significantly lower frying temperatures (usually between 80°C to 120°C) as compared to the high frying temperatures of conventional frying. The lower frying temperature used results in better preservation of the color, flavor and nutrients of the food material.

Production Cost:	₱1,520,000.00 / year
Investment Cost:	₱1,418,000.00 (VF Carrot)
Licensing Fee:	VF Carrot - ₱41,000.00
Royalty Fee:	3% of net sales
Proposed Price:	₱64.00 / 35 g pouch
Target Market:	Food snacks industries, MSMEs, and angel investors

The ITDI has developed processing technologies for the production of vacuum fried crisps from vegetables and fruits such as carrots, squash, okra, sweet potato, banana, pineapple, and mango.

CONTACT



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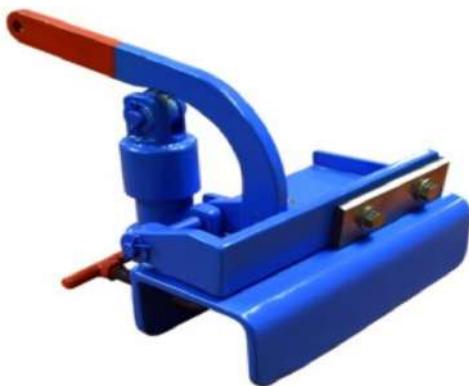
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ABACA FIBER EXTRACTOR



The Abaca Fiber Extractor is a portable and easy to set-up and operate equipment for extracting quality abaca fiber. The light weight structure allows it to be brought to the plantation area without the need of a transport medium. The set-up can be done in just five (5) minutes compared to the 43-minute set-up time for the traditional abaca stripping station. It can be adjusted to suit a left-handed or right-handed operator. The parallel one-sided bevel stripping blade and plate ensures even extraction of fibers. The overall dimensions are 200 mm x 245 mm x 240 mm, while the net weight is 4.54 kg.

Production Cost: ₱6,000.00 per piece (estimated)

Investment Requirements:

Cutting or shearing machine, CNC wire cut for the blade, welding machine, drilling machine/tapping machine, direct labor (skilled workers), and fabrication area

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: c/o fabricator

Target Licensee: Fabricator (preferably with capability on welding, forming, and machining)

Target Market: GTH makers, vocational schools, hobbyist, LGUs, NGOs, abaca farmers, and abaca fiber suppliers

Types of IPs offered

- Utility Model
- Industrial Design

Registration Numbers

- 2-2018-001353
- 3-2019-000478

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DIGITAL MOISTURE METER



This Digital Moisture Meter is the answer to the costly imported moisture meters for wood. A pair of 10-mm long, hardened, and replaceable steel pins can penetrate a 25-39 mm (1-1.5 inches) thick wood to give moisture content (MC) readings of 6-30%. It is calibrated for 25 local wood species and 3 non-wood species.

The unit weighs approximately 14 grams with dimensions of 152 x 68.6 x 30.5 mm (6 x 12 x 1.2 inches). It is powered by a 9-volt battery and automatically shuts down after one minute of inactivity to conserve energy. Its spare parts are locally-available, making repairs easy and affordable.

Production Cost: *Data not available*
Investment Cost: ₱1,000,000.00 +
Licensing Fee: N/A
Royalty Fee: 2% of gross sales
Proposed Price: ₱7,500.00 / unit
Target Market: Furniture and handicraft producers

Type of IP offered

- Utility Model
- Industrial Design
- Trademark

Registration Numbers

- 2-2009-000048
- 3-2013-000705
- 4-2009-001908
- O2008-316

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ECO-DRYER CUM HEAT TREATMENT FACILITY



This Eco-dryer allows the efficient drying of raw materials and finished products in large quantities. Constructing this dryer requires lower capital investment (economical), while its operation is energy efficient (ecological). The Eco-dryer is widely used for Heat Treatment (HT) of wooden pallets. The treatment makes use of FPRDI's modified furnace-type dryer with a computerized data-logger. By holding the temperature at 56°C for 30 minutes, all active beetle populations are killed regardless of life stages.

Drying Cost:	₱80.00 to ₱120.00/hr
Investment Cost:	₱320,000.00 to ₱490,000.00
Licensing Fee:	N/A
Royalty Fee:	2% of gross sales
Suggested Drying fee:	₱150.00 to 200.00 / hr
Target Market:	Pallets, furniture and handicrafts makers

Compared to methyl bromide fumigation, HT is a safer, cheaper and more eco-friendly way of earning the International Plant Protection Convention (IPCC) mark for wood products as required by European and Japanese markets.

Type of IP offered

- Utility Model

Registration Number

- 2-2012-000380

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GITARA NI JUAN



Gitara ni Juan is a multi-disciplinary approach in classical guitar making that also promotes the use of locally-available wood materials. It aims to address the current issues of locally-made classical guitars (sound quality, playability, and manufacturing consistency) in order to standardize the guitar making industry in the Philippines.

Production Cost:	<i>Not applicable</i>
Investment Cost:	<i>Not applicable</i>
Licensing Fee:	<i>By negotiation</i>
Royalty Fee:	<i>By negotiation</i>
Proposed Price:	<i>Not applicable</i>
Target Market:	<i>Musicians, guitar students, and guitar enthusiasts</i>

Type of IP offered

- Trade secret

Registration Number

- N/A

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PANDANUS LEAVES SLITTER-PRESSER



A hand operated machine used to flatten and cut bariw leaves (also called pandan leaves) into several strips that can be varied into 5, 10 or 15 mm width for handicraft production. The resulting bariw leaves strips have improved texture and generally uniform thickness and width size. It replaces the tedious manual process currently practiced by local handicraft weavers. Overall Dimension: 1042 mm x 610 mm x 1048 mm.

Production Cost: ₱60,000.00 (estimated)

Investment Requirement:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: c/o MIRDC

Target Licensee: Fabricator (preferably with capability on welding and machining/gear making

Target Market: GTH makers, vocational schools, hobbyist, LGUs, and NGOs

Type of IP offered

- Utility Model

Registration Number

- 2-2011-000270

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TIKOG PRESSER



The Tikog Presser is an easy to set-up and operator friendly machine for faster flattening of "tikog" and other indigenous leaves for handicraft products. The use of stainless steel hollow rollers and gears makes it lighter and more compact. Overall dimensions are 370 mm x 490 mm x 300 mm (excluding 120 mm Stand), while its net weight is 29.6 kg [+ 3.8 kg for base stand (optional)].

Production Cost: ₱15,000.00 (estimated)

Investment Requirements:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱25,000.00 / piece

Target Licensee: Fabricator (preferably with capability on welding and machining/gear making)

Target Market: GTH makers, vocational schools, hobbyist, LGUs, and NGOs

Type of IP offered

- Utility Model

Registration Number

- 2-2016-000920

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BIOREACTOR



The ITDI-developed bioreactor is designed with a capacity of 500 kg or 1,000 kg to transform biodegradable household wastes into soil-enriching compost.

Production Cost:	N/A
Investment Cost:	No updated computation
Licensing Fee :	Waived
Royalty Fee:	8% of gross sales
Proposed Price:	No updated computation
Target Market:	Fabricators

Type of IP offered

- N/A

Registration Number

- N/A

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CANDLE TYPE CERAMIC WATER FILTER



The candle type nano ceramic water filter is an innovative ceramic water filter system developed to address the demand for simple, effective, and inexpensive water filter for household use in urban and rural areas. The system consists of a candle type water filter that was formulated with local red clay and coated with nano anti - microbial agent to eliminate disease-causing waterborne microorganisms.

Production Cost:	N/A
Investment Cost:	No updated computation
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱900.00 / unit including delivery
Target Market:	Fabricators, LGU, and NGOs

Types of IPs offered

- Industrial Design
- Utility Model

Registration Numbers

- 3-2018-050080
- 2-2019-050098

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CHARM



CharM or Charging in Minutes is a fast-charging system for electric vehicles (EV) that use lithium-ion battery storage technology. It lessens the charging time and fully charges EV in 30 minutes as opposed to the conventional four to six hours. With its capabilities, CharM is significant in supporting the development of a fleet-manage and greener mass transport service in the country.

Target Market: LGUs, business districts, and real estate development companies

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Types of IPs offered

- Utility Model
- Industrial Design

Registration Numbers

- 2-2019-050137
- 3-2019-000687
- 3-2019-000685

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CHITOSAN CaCO₃ COMPOSITE (4C) TECHNOLOGY FOR OIL SPILL REMEDIATION



The technology is for the production of adsorbent material made of chitosan and calcium carbonate composite from waste materials, like shrimp skins and eggshells, which can be used for oil spill clean up.

Production Cost:	₱11,060,000.00 / year
Investment Cost:	₱3,560,000.00
Licensing Fee :	₱124,500.00
Royalty Fee:	3% of gross sales
Proposed Price:	₱1,118.00 / kilogram
Target Market:	Oil spill adsobent manufacturers and distributors

Type of IP offered

- Utility Model

Registration Numbers

- 2-2016-000036
- 2-2016-000037

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DUAL DRUM COMPOSTER



Dual Drum Composter is a small-scale motorized composter for management of biodegradable waste in barangays and communities generating small amount of organic waste. The in-vessel composter is made of two drums (200L-capacity high density polyethylene) with a feeding capacity of 50 kg per drum. The operation is batch-type with 4 to 5 days retention time.

Production Cost:	₱2,710,000.00 / year
Investment Cost:	₱921,000.00
Licensing Fee:	₱113,600.00
Royalty Fee:	3% of gross sales
Proposed Price:	₱106,163.00 / unit
Target Market:	Fabricators, LGUs, and barangays

Type of IP offered

- N/A

Registration Number

- N/A

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PLASTIC DENSIFIER



Plastic Densifier is an ITDI-developed equipment for plastic recycling that converts waste styropor/plastics, especially foamed Polystrene and plastic sando bags, and laminates into useful products such as tables, chairs, cat walk tes, plastic planters, pails, boards, bricks, and synthetic timber plank.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	Waived
Royalty Fee:	8% of gross sales
Proposed Price:	N/A
Target Market:	Fabricators

Type of IP offered

- N/A

Registration Number

- N/A

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PORTABLE BIOGAS DIGESTER



The ITDI Portable Biogas Digester is an air-tight, oxygen free vessel, fed with organic material where the microbial digestion takes place to produce biogas. The Portable Biogas Digester converts the wastes into two useful products: gas for cooking and sludge as soil conditioner.

Production Cost:	₱1,772,000.00 / year
Investment Cost:	₱572,000.00
Licensing Fee:	₱66,000.00
Royalty Fee:	3% of gross sales
Proposed Price:	₱37,095.00 / unit
Target Market:	Fabricators, LGUs, and barangays

Type of IP offered

- Utility Model

Registration Number

- N/A

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QUEEN'S COAL



The Queen's Coal is molded/briquetted from queen pineapple wastes which may be used as an alternative fuel for cooking, grilling, and roasting. It has high thermal/calorific value that it boils water three times faster than other commercial briquettes.

Proposed Price: ₱100.00 / kilogram
Target Market: Charcoal producers

Types of IPs offered

- Utility Model
- Industrial Design

Registration Numbers

- 2-2019-000092
- 2-2019-000352
- 3-2019-000264
- 3-2019-000265
- 3-2019-000266

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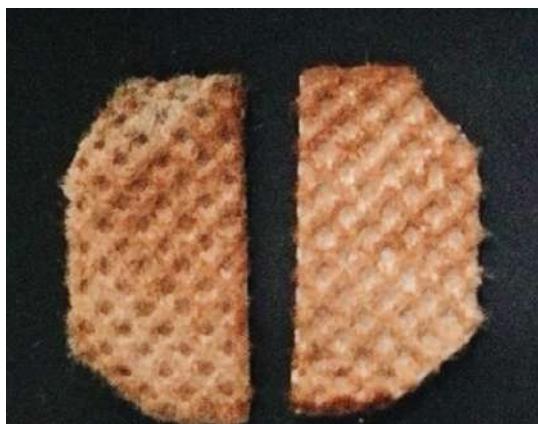
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SYNTHETIC NON-WOVEN FABRICS FOR WASTE WATER TREATMENTS



PNRI-developed material for filtering chromium, mercury, cadmium, & other toxic ions in waste waters.

Production Cost / Investment Cost:

Will depend on the strategies and objectives of the business plan of a technology adoptor.

Licensing Fee / Royalty Fee:

Subject for negotiation between contracting parties and review of Fairness Opinion Board.

Proposed Price:

To be determined by the technology adoptor based on their profit and loss assessments and other business considerations.

Target Market:

As solutions in industries which filter chromium, mercury, cadmium, & other toxic ions, in waste waters with relatively acidic or alkaline properties.

Type of IP offered

- Patent

Registration Number

- N/A

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TECHNOLOGY GENERATORS

Dr. Jordan Madrid and team

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TRASH RAKE



Production Cost: ₱6,900,000.00 (for existing design only; civil works included)

Investment Requirement:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: c/o MIRDC

Target Licensee: Power plant / LGU / Fabricator (preferably with capacity on bus body & chassis fabrication, electrical integration, and civil works)

Target Market: Power plants / LGUs / Land developers (preferably with capability on machining welding, electro-mechanical, civil works)

Trash Rake is designed and developed as an alternative measure to improve flood control operation through: better trash collection system, capability to lift large-sized trash along the creek, de-clogging of drainage system, and boost waste management capabilities. The existing model in Balinghasa Creek, along G. Araneta Ave. corner Mauban St., Quezon City, has a collection rate of 8.8 cubic meter of trash per day. Specifications: 6 m width, 5.6 m height; 6 rakes, 10 Hp Gear Motor and 1.5 T Gantry Crane capacity. The trash rake design may depend on the size of creek.

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VIGORMIN/ ORGANOMINERAL



A wastewater treatment and odor-reducing formulation composed of naturally-occurring organo minerals that stimulate growth of indigenous aerobic microorganisms in wastewater and boost the degradation of organic pollutants.

Vigormin is a formulation of naturally-occurring organominerals which reduce smell and muddy color in waste and septic waters. Its application stimulates growth of both anaerobic and aerobic microorganisms in wastewater and boosts the degradation of organic pollutants. The use of organominerals significantly improves water quality based on the effluent standards set by the Department of Environment and Natural Resources (DENR).

Target Market: Hotels, MRFs, government/LGUs, restaurants, etc

CONTACT



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Type of IP offered

- N/A

Registration Number

- N/A

TECHNOLOGY GENERATOR

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ABACA-REINFORCED COMPOSITE PRODUCTION TECHNOLOGY (FOR TRICYCLE DRIVER'S ROOF)



Abaca fibers combined with resin to form composites take advantage of abaca's low density and insulating properties to create a material that is lightweight and environment-friendly. The abaca-reinforced material produced can be used as an eco-friendly, lightweight material for roofs and even vehicles.

Production Cost:	₱11,084,000.00 / year
Investment Cost:	₱3,213,000.00
Licensing Fee:	₱87,800.00
Royalty Fee:	3% of gross sales
Proposed Price:	₱1,954.00 / sq. m board
Target Market:	Fabricators

Type of IP offered

- Utility Model

Registration Number

- 1-2017-050039

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AUTOMATED GUIDEWAY TRANSIT (AGT) SYSTEMS



Production Cost ₱22,000,000.00
(rolling stock only)

Investment Requirement:
Fabrication equipment +
additional R&D

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: c/o MIRDC

Target Licensee: Land developer / LGU /
Fabricator (preferably with
capacity on bus body & chassis
fabrication, electrical integration,
and civil works)

The Automated Guide-way Transit (AGT) System is a locally designed and fabricated electric-powered rapid mass transit system which boasts of Filipino ingenuity. The environment-friendly AGT hopes to reduce traffic congestion, lessen greenhouse gas emission and further stimulate railway development and more economic opportunities in our urban centers. The AGT has the following characteristics: operated manually or fully automated (driverless/remote monitoring), employs rubber tires running on concrete tracks, powered through a built-in conductor rail along the guideway, small turning radius, and bogies are locally designed and developed thus ensuring sustainability of the technology. Safety features includes; door interlocking system, horn and door buzzers, deadman's switch, and retainer assembly along the tracks. Variants are Light-AGT (120 passenger capacity) and AGT (240 passenger capacity).

Type of IP offered

- Utility Model

Registration Numbers

- 2-2013-000668
- 2-2013-000667
- 2-2013-000665
- 2-2013-000666
- 2-2013-000669

CONTACT



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TECHNOLOGY GENERATOR

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BAMBOO CHARCOALING KILN (90 KG CAPACITY)



The bamboo charcoaling kiln is used for the production of high quality charcoal for industrial uses with light distillate or pyrolygenous liquor or industrial vinegar recovery. It consists of the furnace, double-walled cylindrical kiln, chimney and smoke collector.

Production Cost:	₱92.00 / kg <i>(high quality bamboo charcoal)</i>
Investment Cost:	₱400,000.00
Licensing Fee:	N/A
Royalty Fee:	2% of gross sales
Proposed Price:	₱138.00 / unit
Target Market:	Activated carbon industry

Type of IP offered

- Utility Model

Registration Number

- 2-2008-00231

CONTACT

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BAMBOO FLATTENING MACHINE



The Bamboo Flattening Machine developed by the FPRDI was designed to produce flattened bamboo for furniture, handicraft, and construction industries. The flattened bamboo can be a substitute for manually-made "crushed bamboo" and can be made into furniture and flooring products for export.

Production Cost:	₱185.00 / sq m
Investment Cost:	₱1,400,000.00
Licensing Fee:	N/A
Royalty Fee:	2% of gross sales
Proposed Price:	₱277.00 / sq m
Target Market:	Engineered bamboo producers

Type of IP offered

- Utility Model

Registration Number

- 2-2013-000475

CONTACT

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BAMBOO VENEER LATHE



Veneers are thin sheets of wood or bamboo that are glued together to form panels, either by hot or cold pressing, conditioned for 3 days and laminated before they are converted into decorative floor tiles, table tops, and panels. FPRDI's bamboo veneer lathe can produce bamboo veneers of varying thickness (0.5, 0.75, 1.0, 1.25, 1.5, 1.75, and 2.0 mm) and can produce up to 93 sq m veneer per day. This equipment can produce more thickness of veneers and is cheaper than imported units since locally-available materials are used.

Production Cost:	₱32.00 / sq m
Investment Cost:	₱1,400,000.00
Licensing Fee:	N/A
Royalty Fee:	2% of gross sales
Proposed Price:	₱80.00 / meter
Target Market:	Engineered bamboo producers, furniture and handicraft producers

Type of IP offered

- Utility Model

Registration Number

- 2-2009-000032

CONTACT



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CNC PLASMA CUTTER (PLASMANOY)



Production Cost ₱1,000,000.00 (estimated)
Investment Requirement:

c/o MIRDC

Licensing Fee: For Negotiation

Royalty Fee: For Negotiation

Proposed Price: c/o MIRDC

Target Licensee: Fabricator (preferably with capability on welding, mechanical, electrical, and instrumentation)

Target Market: Fabrication shops, schools, hobbyist, GTH makers, and signage makers

The CNC Plasma Cutter "Plasmanoy" cuts intricate designs faster and more accurately from stainless steel, aluminum, brass and mild steel. It consists of a two-axis actuated gantry type X-Y cutting table with torch height compensator for the vertical motion. The machine utilizes Digital Signal Processing (DSP) for position control and rack gear and pinion linear power transmission for the X and Y motion. The coordinated movement runs through a CAM follower linear rails mechanism. The table are made of square tubes and C-channels with replaceable cutting grates. A catch made of bended mild steel plate is placed immediately below the cutting grates to hold spatters and materials. A heavy duty plasma generator and compressor are considered in the design to ensure flexibility and robustness.

Type of IP offered

- N/A

Registration Number

- N/A

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CNC ROUTER (SUPER LILOK)



Production Cost	₱790,000.00 (CNC Router) / ₱1,490,000.00 (CNC Router with Automatic Tool Changer)
Investment Requirement:	c/o MIRDC
Licensing Fee:	For negotiation
Royalty Fee:	For negotiation
Proposed Price:	c/o MIRDC
Target Licensee:	Fabricator (preferably with capability on welding, mechanical, electrical, and instrumentation)
Target Market:	Fabrication shops, schools, hobbyist, GTH makers, and signage makers

The “Superlilok” CNC Router allows creativity and complexity in woodworking, acrylics and metal-cutting designs and also increases work efficiency. The speed of the spindle and type of router bit can be adjusted on the software controller. Compared to manual carving, more intricate and sophisticated designs can be produced and reproduced in large quantity without fear of unwanted cutting.

Features:

- Heavy duty, all-steel tube frame construction
- 25 mm liner ball-bearing profile rails
- MultiCAM EZ Control user-friendly operator interface
- 12-MB memory with unlimited file size \ transfer capabilities
- High-speed three axis motion control system
- Brushless digital AC servo drive system

Specifications:

- Maximum Working Area (mm): 1300 x 2500
- Maximum Travel Speed (m/min): 30
- Maximum Cutting Speed (m/min): 20
- T-slot table (mm): 1260 x 2600 (extrusion)
- Drivers (3): X, Y, Z axis DSP
- File Format Acceptable: G-code
- Spindle: Router type, 3 Hp, Inverter Driven Servo Motor
- CAM Processor for 3D
- DSP Controller

Type of IP offered

- N/A

Registration Number

- N/A

TECHNOLOGY GENERATOR

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DRYER FOR NON-WOOD RAW MATERIALS (NWRM)



This dryer allows the drying of NWRM and finished products in small quantities. It shortens the drying time for water hyacinth, charcoal briquettes, bamboo and other grasses, ensuring the availability of quality dried raw materials even during rainy months. Thus, allowing continuous production and timely delivery of hand-crafted finished products.

Production Cost:	₱850.00 /load (Drying Cost)
Investment Cost:	₱280,000.00 - ₱320,000.00
Licensing Fee:	N/A
Royalty Fee:	2% of gross sales
Suggested Drying fee:	₱1,275.00 / load drying fee
Target Market:	Pallets, furniture, and handicrafts makers

Type of IP offered

- Utility Model

Registration Number

- 2-2010-000228

CONTACT

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ELECTRIC POTTER'S WHEEL



The Electric Potter's Wheel is a motor driven, adjustable speed, compact machine for shaping ceramic clay into round ceramic ware. It can also be used for trimming excess material from dried ware and for applying decoration or rings of colors. The 14-inch wheel head plate speed (range: 0 to 250 rpm) can be controlled using a presser pedal in a clockwise or counterclockwise direction. Motor: 1/2 Hp, brushless, 220 V, 60 Hz, Single-Phase. The main body is powder coated for protection from rust.

Production Cost ₱60,000.00 (estimated)

Investment Requirement:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱85,000.00 per piece

Target Licensee: Fabricator (preferably with capability on welding, machining, electrical, and instrumentation)

Target Market: Pottery makers, vocational schools, hobbyist, studio owners, LGUs, and NGOs

Types of IPs offered

- Utility Model
- Industrial Design

Registration Numbers

- 2-2018-001352
- 3-2020-000065

CONTACT



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TECHNOLOGY GENERATOR

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FREEZE DRYER



The bench-type equipment is for freeze-drying high-value food and pharmaceutical products. It is used to preserve a perishable material and make the material more convenient for transport. It effectively retains the flavors, smells, and nutritional content of the products and also preserves temperature-sensitive products (e.g. enzymes, blood plasma, vaccines). The vacuum chamber of the freeze dryer can accommodate five (5) adjustable trays and has a condensing capacity of three (3) to four (4) kg of moisture in 24 hours. The equipment dimensions are 1 m x 0.95 m x 1.6 m.

Production Cost ₱511,000.00 (estimated)

Investment Requirement:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱1,015,600.00 per set

Target Licensee: Fabricator (preferably with capability on stainless steel fabrication, instrumentation, and controls)

Target Market: Food processors, schools, RDIs, NGOs, Farmers' cooperatives, and pharmaceutical/ health supplement manufacturers

Type of IP offered

- Utility Model

Registration Number

- 2-2013-000633

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HYBRID ELECTRIC ROAD TRAIN



The Hybrid Electric Road Train (HERT) is a diesel-electric hybrid multiple-coach urban mass transit vehicle. It utilizes the interplay between generator set and lithium-ion batteries allowing the use of a lower-rating generator set to reduce diesel consumption thus lowering carbon emission. The HERT comes in 2 designs: 1) 240-passenger capacity Hybrid Electric Road Train, and 2) 160-passenger capacity Light Hybrid Electric Road Train.

Production Cost: ₱34,000,000.00 (L-HERT model)

Investment Requirement:

₱50,000,000.00

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱40,000,000.00 to

₱45,000,000.00 per set

Target Market: Land developer/LGU/Fabricator (preferably with capability on bus body/chassis fabrication and electrical integration)

Types of IPs offered

- Invention
- Industrial Design

Registration Numbers

- 1-2017-000254
- 3-2016-001007

CONTACT



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HYBRID ELECTRIC TRAIN



Production Cost: ₱120,000,000.00 to
₱122,000,000.00

Investment Requirement:
₱200,000,000.00

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱182,000,000.00 per set

Target Licensee: LGUs/Fabricator (preferably with capability on bus body/chassis fabrication and electrical integration) and NGOs

The Hybrid Electric Train (HET) is designed and developed by Filipino Engineers. The diesel-electric hybrid power system reduces diesel consumption thus lowering carbon emission. It employs a regenerative braking system that converts the kinetic energy during deceleration into electric energy and stores it in the batteries, thus saving the energy for succeeding use. Powerful airconditioner, perimeter seats and spaces for wheelchairs are included in the design. One of its safety features, the anti-climbing system, helps absorb impact in the event of collision accident. The HERT has undergone performance testing and the Reliability, Availability, Maintainability and Safety (RAMS) Analysis and Validation testing using actual commuters with the Philippine National Railways (PNR). The HET has a maximum capacity of 880 passengers.

Types of IPs offered

- Invention
- Utility Model
- Industrial Design

Registration Numbers

- 1-2017-000382
- 1-2017-000381
- 1-2019-000488
- 1-2019-000489
- 2-2018-001613
- 3-2016-001429

CONTACT



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ITDI DRUM CARBONIZER



The ITDI-developed Dual Drum Carbonizer is an updraft flow type vertical carbonization equipment with cooling system for tar recovery. It has a capacity of 10 kg per hour.

Production Cost:

₱654,000.00

Investment Cost:

₱3,080,000.00

Licensing Fee:

₱15,000.00

Royalty Fee:

1 to 2 % of gross sales on the second year of the agreement

Proposed Price:

₱33,120.00 / unit

Target Market:

Charcoal producers

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT

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JIGGER AND JOLLY MACHINE



The Jigger and Jolly Machine is a motor driven, adjustable speed, compact machine for shaping ceramic clay into flat and hollow wares such as dinner plates and bowls, respectively. It can also be used for trimming excess material from dried ware and for applying decoration or rings of colors. It is equipped with tool holder ready for attachment of jiggering and jollying tools. Speed, from 0 to 250 rpm, can be controlled using a presser pedal. The main body is powder coated for protection from rust.

Production Cost: ₱70,000.00 (estimated)

Investment Requirement:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱100,000.00 per piece

Target Licensee: Fabricator (preferably with capability on welding, machining, electrical and instrumentation)

Target Market: Pottery makers, vocational schools, hobbyist, studio owners, LGUs, and NGOs

Types of IPs offered

- Utility Model
- Industrial Design

Registration Numbers

- 2-2018-001354
- 3-2020-000065

CONTACT



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LPG-FIRED SPRAY DRYER



Production Cost: ₱792,000.00 (estimated)

Investment Requirement:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱1,573,000.00 per set

Target Licensee: Preferably existing food equipment manufacturer with capability on stainless steel fabrication, instrumentation, and controls

Target Market: Food processors, schools, RDIs, NGOs, farmers' cooperatives, and pharmaceutical/health supplement manufacturers

The LPG-fired Spray Dryer is used for converting liquids, slurry or suspension into dry powder by rapidly drying with hot gas. This technology is widely used in the production of dry solids in the form of powdery substance or granules such as in the preparation of pharmaceutical products, beverages, food colorings, and plant extracts. It can be used for heat-resistant and heat-sensitive products and offers better control of powder quality in terms of particle size and bulk density. The spray dryer can handle up to 60 liters of liquid product with evaporation rate of 6-7 kg moisture/hour. It uses a liquified petroleum gas (LPG) burner to produce the heated air stream. Approximate dimensions: 2.5 m x 1.7 m x 3.1 m.

Type of IP offered

- Utility Model

Registration Number

- 2-2016-000403

CONTACT



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MICROCUPOLA



Ideal for small-scale production of cast iron products, the Microcupola is a 10-inch diameter modular cupola furnace equipped with measuring instruments. It is easy to transport, fabricate and maintain. Capacity is 30 kg cast iron per tap per 10 minutes or approximately 180 kg/hr.

Production Cost:	₱670,000.00 (estimated cost)
Investment Requirement:	c/o MIRDC
Licensing Fee:	For negotiation
Royalty Fee:	For negotiation
Proposed Price:	c/o MIRDC
Target Market:	Foundry shops, schools, and NGOs

Type of IP offered

- Utility Model

Registration Number

- 2-2012-000615

CONTACT



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MODULAR WATER RETORT



The modular water retort allows food processors to retort products packed in retortable pouches/plastics. The equipment is also applicable for various types of containers: metal, cans, glass, and bottles. The retorting process destroys all microbes to prolong shelf life and make products safe for consumption by using steam/hot water as a heating medium. The cooking vessel capacity is 100 liter, which can accommodate up to 100 pcs. of eight (8) oz. glass jars or 100 pcs. of 150-gram retort pouches. The base dimensions are 1.6 m x 1.4 m.

Production Cost: ₱324,000.00 (estimated)

Investment Requirement:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱642,500.00 per set

Target Licensee: Fabricator (preferably with capability on stainless steel fabrication, instrumentation, and controls)

Target Market: Food processors, Schools, RDIs, NGOs, and Farmers Cooperatives

Type of IP offered

- Utility Model

Registration Number

- 2-2016-000401

CONTACT



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TECHNOLOGY GENERATOR

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SHAKE TABLE / EARTHQUAKE SIMULATOR



The Shake Table or Earthquake Simulator can simulate both horizontal and vertical earthquake motions with intensities ranging from III to VIII. It is an effective tool for educating students and the public on awareness of earthquakes. It can be used by professional responders on various ways to respond through understanding of intensities and magnitudes of earthquake. R&D laboratories can use this simulator to evaluate prototype structure designs and other earthquake disaster prevention and mitigation technologies. Floor size: 3 m x 3 m. Capacity: 10 persons

Production Cost: ₱300,000.00

(+ Seismic Intensity Meter - ₱85,000.00)

Investment Requirement:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: c/o MIRDC

Target Licensee: Fabricator (preferably with capability on welding, mechanical, electrical, and instrumentation)

Target Market: LGUs (DRRMOS), schools, and RDIs

Type of IP offered

- N/A

Registration Number

- N/A

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VACUUM FRYER



Production Cost: ₱802,000.00 (estimated)

Investment Requirement:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱1,593,000.00 per set

Target Licensee: Fabricator (preferably with capability on stainless steel fabrication, instrumentation, and controls)

Target Market: Food processors, schools, RDIs, NGOs, and farmers' cooperatives

The vacuum fryer is designed to deep-fry food in a closed system and dehydrate food at a lower temperature in order to retain natural color and flavor of food. The final products are crunchy and have low fat and moisture content. Prospect products are banana, mango, pineapple, durian, jackfruit, papaya, okra, and carrot to name a few. The cooking vessel capacity is 100 liters or can process up to 10 kg of food product per batch. Equipped with improved burner controlled by a solenoid valve in the design, the vacuum fryer optimizes heating and energy savings. The vacuum fryer uses LPG as fuel and can be modified to use other sources of fuel such as biomass. A spinner located inside the frying chamber efficiently remove excess oil from the food product. Unit base dimensions: 1.5 m x 1.3 m

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Type of IP offered

- Utility Model

Registration Number

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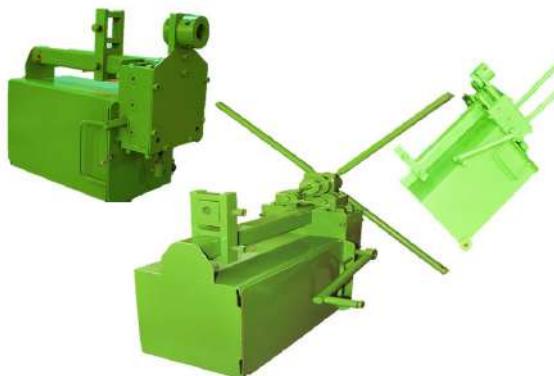


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WROUGHT IRON FORMING EQUIPMENT



The Wrought Iron Forming Equipment is a portable, robust, quick set-up forming equipment that can bend, roll, curl and twist metal flat strips, square bars and round bars. It helps complete decorative furniture, agricultural and industrial metal projects faster and easier. The mobile tool box serves a base and accessories holder for on-site fabrication works.

Production Cost: ₱55,000.00 (estimated)

Investment Requirement:

c/o MIRDC

Licensing Fee: For negotiation

Royalty Fee: For negotiation

Proposed Price: ₱89,000.00 per set

Target Licensee: Fabricator (preferably with capability on welding, machining, and heat treatment)

Target Market: Metal works/welding shops, metal furniture, and hardwares

Type of IP offered

- Utility Model

Registration Number

- 2-2016-000892

CONTACT

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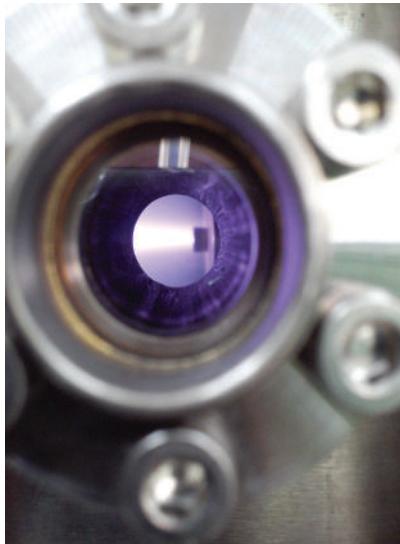


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COATIN



The technology enables synthesis of titanium nitride (TiN) coating on industrial tools such as drill bits, taps, punches and extrusion molds using a locally developed magnetized sheet plasma source.

Production Cost:	<i>Not applicable</i>
Investment Cost:	<i>Not applicable</i>
Licensing Fee:	<i>By negotiation</i>
Royalty Fee:	<i>By negotiation</i>
Proposed Price:	<i>Not applicable</i>
Target Market:	<i>Semiconductor companies and coating companies</i>

Type of IP offered

- Patent

Registration Number

- 1-2004-502138

CONTACT



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MARINE NANOCOAT



A hydrophobic, anti-corrosive, and anti-barnacle coating composed of polyaniline, graphene, polysiloxane applied to ship vessels.

Developed a coating product from nanocomposite materials applied for shipping vessels. An anti-corrosive and anti-barnacle coating applied to ship hulls and anti-UV coating material for glass window in ship decks.

Production Cost:	₱1,725,018.00
Investment Cost:	₱5,760,108.00
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	₱7,000.00 / sq m
Target Market:	Ship owners and shipbuilding companies

Type of IP offered

- N/A

Registration Number

- N/A

CONTACT



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NANO-PRECIPITATED CALCIUM CARBONATE



The technology is a method for the production of Nano Precipitated Calcium Carbonate from local limestone deposits having an average particle size ranging from 35-45 nm and whiteness value of more than 95% for various (food, industrial, and pharmaceutical grade) applications, such as in the manufacture of paper, rubber, plastics, plants, medicines, and food.

Production Cost:	₱622,000.00 / year
Investment Cost:	₱964,000.00
Licensing Fee:	₱313,800.00
Royalty Fee:	3% of gross sales
Proposed Price:	₱205.00 / kilogram
Target Market:	Plastic industries, rubber, building, and construction companies

Type of IP offered

- Utility Model

Registration Number

- 2-2018-050239

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NANOCLAY PRODUCTION TECHNOLOGY FROM LOCAL BENTONITE ORE (AS AN ADDITIVE IN POLYMER CLAY NANOCOMPOSITE SYSTEM)



The technology is a method for manufacturing nanocomposites with several property enhancements for use in various industrial applications, such as in automotive, construction, electronics, and packaging.

Production Cost:	₱11,940,000.00 / year
Investment Cost:	₱6,250,000.00
Licensing Fee:	₱460,000.00
Royalty Fee:	3% of gross sales
Proposed Price:	₱8,210.00 / 25 kg/sack
Target Market:	Plastic industries, rubber, building, and construction companies

Type of IP offered

- Utility Model

Registration Number

- 2-2011-000679

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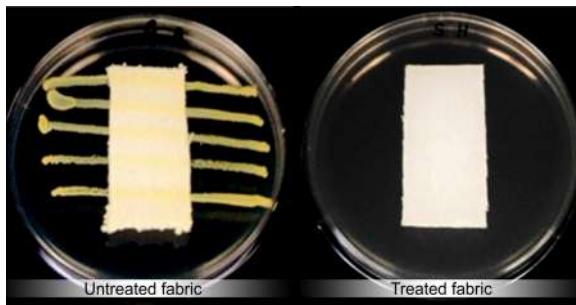
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ANTIMICROBIAL FINISHING FOR TEXTILES



A specially-formulated textile finishing treatment designed to inhibit the growth of known disease-causing bacteria on natural textile materials such as bed sheets, curtains, gauze, lab gown, etc., that would mitigate the spread of infectious diseases in the healthcare environment.

Production Cost: ₱1,960,000.00
Investment Cost: ₱5,820,000.00
Licensing Fee: For discussion with TTBDO
Royalty Fee: For discussion with TTBDO
Proposed Price: For discussion with TTBDO
Target Market: Finishing mill, weaving mill, knitting mill, medical industry, and natural textile advocates

Type of IP offered

- Utility Model

Registration Numbers

- 2-2019-050105
- 2-2019-050103
- 2-2019-050110

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BLENDED FABRIC FOR TOXIC HEAVY METAL REMOVAL



PNRI-developed material that filters toxic heavy metals for various industrial applications.

Production Cost / Investment Cost:

Will depend on the strategies and objectives of the business plan of a technology adoptor.

Licensing Fee / Royalty Fee:

Subject for negotiation between contracting parties and review of Fairness Opinion Board.

Proposed Price:

To be determined by the technology adoptor based on their profit and loss assessments and other business considerations.

Target Market:

as solutions in industries which filter chromium, mercury, cadmium, & other toxic ions in waste waters with near neutral pH.

Type of IP offered

- Utility Model

Registration Number

- N/A

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Dr. Jordan Madrid and team

DOST-PNRI

BLENDED NONWOVEN TEXTILES FROM ABACA FIBER



An eco-friendly process of converting abaca fibers into nonwoven materials to be blended with other fibers.

Production Cost: ₱2,100,000.00

Investment Cost: ₱14,200,000.00

Licensing Fee: For discussion with TTBDO

Royalty Fee: For discussion with TTBDO

Proposed Price: For discussion with TTBDO

Target Market: Textile mill, abaca fiber processors, nonwoven processors, and natural textile advocates and producers

Type of IP offered

- Utility Model

Registration Number

- 2-2019-080150

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BLENDED SPUN YARNS FROM ABACA FIBERS



An optimized process of converting abaca fiber into a spinnable form suitable for woven and knitted fabric applications.

Production Cost: ₱2,100,000.00
Investment Cost: ₱14,200,000.00
Licensing Fee: For discussion with TTBDO
Royalty Fee: For discussion with TTBDO
Proposed Price: For discussion with TTBDO
Target Market: Textile Mill, abaca fiber processors, natural textiles advocates and producers, and uniform makers

Type of IP offered

- Patent

Registration Number

- 1-2011-176

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BLENDED SPUN YARNS FROM BANANA FIBER



An optimized process of converting banana fiber into a spinnable form for yarn production and suitable for woven and knitted fabric applications suitable for woven and knitted fabric applications.

Production Cost: ₱2,100,000.00

Investment Cost: ₱14,200,000.00

Licensing Fee:

For discussion with TTBDO

Royalty Fee:

For discussion with TTBDO

Proposed Price:

For discussion with TTBDO

Target Market:

Textile mill, banana fiber processors, natural textiles advocates and producers, and uniform makers

Type of IP offered

- Patent

Registration Number

- 1-2011-000176

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BLENDED SPUN YARNS FROM PINEAPPLE LEAF FIBER



An optimized process of converting pineapple leaf fiber into a spinnable form for yarn production and suitable for woven and knitted fabric applications.

Production Cost: ₱2,200,000.00
Investment Cost: ₱14,200,000.00
Licensing Fee: For discussion with TTBDO
Royalty Fee: For discussion with TTBDO
Proposed Price: For discussion with TTBDO
Target Market: Textile mill, pineapple fiber processors, natural textiles advocates and producers, and uniform makers

Type of IP offered

- Patent

Registration Number

- 1-2011-000176

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INDUSTRY-SCALABLE NATURAL DYEING



An industry-scalable type process of natural dye production that has been formulated for effective dye extraction, less water consumption and shorter duration for dyeing application. This is applied using PTRI-designed two-way extraction and dyeing machine.

Production Cost: ₱3,200,000.00
Investment Cost: ₱7,300,000.00
Licensing Fee: For discussion with TTBDO
Royalty Fee: For discussion with TTBDO
Proposed Price: For discussion with TTBDO
Target Market: Finishing mill, natural textiles advocate and producers, handicraft associations, and fiber processors,

Type of IP offered

- Patent

Registration Number

- 1-2020-050124

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SUGARCANE-BAGASSE TEXTILE PROCESSING



An optimized process of converting sugarcane-bagasse fibers into a spinnable form for yarn production and suitable for woven and knitted fabric applications suitable for woven fabric application.

Production Cost:	₱1,800,000.00
Investment Cost:	₱14,200,000.00
Licensing Fee:	For discussion with TTBDO
Royalty Fee:	For discussion with TTBDO
Proposed Price:	For discussion with TTBDO
Target Market:	Textile mill, sugarcane-bagasse fiber processors, handicraft makers, and natural textile advocates and producers

Type of IP offered

- Utility Model

Registration Numbers

- PH-2-2017-50133
- PH-2-2018-50135

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WATER-REPELLENT FINISHING FOR TEXTILES



A durable, water-based finishing treatment for fabrics to make them water-repellent without affecting the comfort ability. This technology finds application in the production of water-repellent face masks, shoes, bags, and home textiles, among others.

Production Cost: ₱2,250,000.00

Investment Cost: ₱6,700,000.00

Licensing Fee: For discussion with TTBDO

Royalty Fee: For discussion with TTBDO

Proposed Price: For discussion with TTBDO

Target Market: Finishing mill, weaving mill, knitting mill, medical industry, and natural textile advocates and producer

Type of IP offered

- Utility Model

Registration Numbers

- 2-2021-050145
- 2-2021-050146
- 2-2019-050109

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QUALITY HEALTHCARE



A healthy population means a productive labor force that is essential to the economic progress of the country. Inefficiencies that hinder the delivery of quality healthcare services must be addressed to minimize health issues and maximize societal productivity. And so, technologies and innovations are continually being developed to improve healthcare outcomes and services for the general public.

The technologies featured in this category aim to provide quality healthcare through development of innovative health equipment, efficient and affordable diagnosis methods for prominent diseases, as well as improved database management of medical records.

AGAPAY



The Agapay Project is a Robotic Exoskeleton Prototype with a biofeedback mechanism for rehabilitation of post-stroke and injured patients by assisting motor movements in the shoulders, arms, and hands. The technology provides patients with high-performance treatment option leading to a faster recovery rate. The 3D-printed biomedical devices, designed to be comfortable, safe, and user-friendly, offers a cost-effective solution by utilizing a real-time biofeedback system which records neuromuscular activity using surface electromyography.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	For negotiation
Royalty Fee:	N/A
Proposed Price:	Confidential
Target Market:	Rehabilitation centers, clinics, and hospitals

Type of IP offered

- Patents

Registration Numbers

- PH 1-2018-000252
- PH 1-2018-000369
- PH 1-2019-000184

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AXIS KNEE SYSTEM



A total knee replacement system that is designed for a wide range of sizes. This world class, FDA-approved product was conceptualized and developed by Filipino doctors and engineers, together with some consultants from Japan, China, and US, and is being manufactured locally in Orthopaedic International, Inc.'s ISO 13485-certified plant in Cabuyao, Laguna.

Production Cost:	Confidential
Investment Cost:	Confidential
Licensing Fee:	For negotiation
Royalty Fee:	For negotiation
Proposed Price:	₱60,000/implant (senior citizen rate, public hospitals); ₱70,000/implant (senior citizen rate, private hospitals)
Target Market:	Patients with severe osteoarthritis, orthopaedic surgeons, and hospitals

Type of IP offered

- Patents

Registration Numbers

- PCT PH 1-2016-500713
- WO 2015-056053 (A1)
- US2016242792 (A1)
- PCT PH 1-2015-501725
- WO2014124235 (A1)
- JP2016506823 (A)
- JP2016506824 (A)
- CN105377163 (B)
- EP2953559 (B1)
- KR20150140641 (A)
- US9707086
- PH1-2015-501726
- HK1220882 (A1)
- US 9861486
- CN105307585 (B)
- EP2953561 (B1)
- KR20150141936 (A)
- US2014228964 (A1)
- PH 4-2015-502859
- US9241800

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AXIS REVISION KNEE SYSTEM



Production Cost:	Confidential
Investment Cost:	Confidential
Licensing Fee:	For negotiation
Royalty Fee:	For negotiation
Proposed Price:	Depends of the types and number of components needed for the patient
Target Market:	Patients with failed primary knee implant or with severe knee deformity for primary knee replacement, orthopaedic surgeons, and hospitals

Total Knee Replacement (TKR) is a mature and proven procedure performed on millions of patients worldwide. However, after many years in service the implants can degrade and need to be replaced. A revision knee system is needed in these cases. The Axis Revision Knee System is designed for revision total knee replacement (TKR) surgeries. It can also be used for difficult primary TKR surgeries where there is severe joint deformity and bone loss. The system offers a wide range of implant components to fit individual patient requirements.

Revision knee surgery is a complicated and difficult procedure and generally performed by experienced and fellowship-trained surgeons. However, even in the hands of an experienced surgeon, revision surgery can still result in sub-optimal results. In many cases, the surgeon has to rely on "eyeballing" and estimates in cutting bone and balancing ligaments. The Axis Revision Knee System offers unique instrumentation and surgical technique that guide the surgeon in making more accurate cuts and attain better soft tissue balance.

Type of IP offered

- N/A

Registration Number

- N/A

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BIOTEK M DENGUE DETECTION KIT



A diagnostic kit which acts as a confirmatory test for diagnosis of dengue infection in the first 0-5 days of illness, and results would be available in an hour or less. Designed to be used in hospitals or clinics with minimal laboratory facilities, using this technology would mean less admissions for dengue-suspected cases, therefore saving resources for both hospital and patients.

Production Cost:	Confidential
Investment Cost:	Confidential
Licensing Fee:	For negotiation
Royalty Fee:	For negotiation
Proposed Price:	N/A
Target Market:	Hospitals, diagnostic and laboratories

Bioteck-M is an affordable and locally-developed rapid test kit for accurate detection of dengue infection within an hour. It is part of the "Lab-in-a-Mug Project" which integrates diagnostic kits in an isothermal unit as small as a "mug" and functions as a diagnostic device similar to a portable laboratory. This local innovation has high sensitivity, specificity, robust, and less expensive than the current diagnostic tests in the market.

CONTACT

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Types of IPs offered

- Utility Model
- Trademark

Registration Numbers

- PH 2-2012-000718
- PH 2-2015-000236
- PH 2-2015-000237
- PH 4-2017-004251

OL TRAP (OVICIDAL/LARVICIDAL TRAP SYSTEM)



The OL trap is a device used to control the *Aedes* mosquito population, the dengue-carrying species. The OL Trap's ovicidal and larvicidal effect prevents the next generation of *Aedes* mosquitoes from reaching adulthood, thus curbing their population.

Production Cost:	N/A
Investment Cost:	No updated computation
Licensing Fee:	N/A
Royalty Fee:	N/A
Proposed Price:	No updated computation
Target Market:	Angel investors, healthcare, and MSMEs

Type of IP offered

- Utility model

Registration Number

- 2-2011-000140

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COMMUNITY HEALTH INFORMATION TRACKING SYSTEM (CHITS)



An electronic medical record system that reduces patient waiting time and improves monitoring of patient care through efficient data encoding and records retrieval. It is capable of immediate and direct transmission of reports to the Philippine Health Insurance Corporation for faster processing of reimbursements to support the delivery of more responsive quality health care services for everyone and everywhere at any time.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	₱300,000.00 (process ongoing)
Royalty Fee:	5% of gross sales
Proposed Price:	For one (1) software per new site: ₱40,000.00 (new site-upfront fee) ₱5,000.00 (upfront fee for an MD user) ₱30,000.00 (subscription fee for facility) ₱10,000.00 (upfront fee for returning MD)
Target Market:	Rural health units

Type of IP offered

- Trademark

Registration Number

- PH 4-2019-501573

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eHATID LGU



The eHealth Tablet for informed Decision Making of LGUs(eHATID) is an android-based electronic medical record system that was developed with the aim to improve patient data management and delivery of health care services. This mobile application allows target end-users to electronically encode and store patient data in database even in the absence of an internet connection.

Types of IPs offered

- Patent
- Utility Model
- Trademarks
- Copyrights

Registration Numbers

- PH 1-2020-050024
- PH 2-2019-050277
- PH 4-2020-003193
- PH 4-2020-003194
- PH 4-2020-003195
- PH 4-2020-003191
- PH 4-2020-003199
- PH 4-2020-003192
- PH 4-2020-003196
- PH 4-2020-003197
- PH 4-2020-003198
- N2017-298
- N2017-299
- N2017-300
- A2017-1608

Production Cost:	N/A
Investment Cost:	Tablet and/or smartphone
Licensing Fee:	For negotiation
Royalty Fee:	For negotiation
Proposed Price:	N/A
Target Market:	LGUs

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RXBOX



RxBox makes providing quality health care available and accessible for all Filipinos, everywhere. Through point-of-care patient data capture, clinic records management, automated report generation, and telemedicine, RxBox creates health system that delivers efficient, effective, and high-quality care.

Production Cost:	₱60,000.00 per unit (maternal + ECG)
Investment Cost:	N/A
Licensing Fee:	₱280,000.00
Royalty Fee:	3% of gross sales
Proposed Price:	₱100,000.00 deployment cost + ₱20,000.00 monthly subscription / RxBox unit, desktop and wifi access point
Target Market:	Public RHUs, lying-in clinics, private hospitals, and diagnostic clinics

Type of IP offered

- Utility Model

Registration Number

- PH 2-2016-000114

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AKAPULKO LOTION



An affordable locally sourced herbal medicine which has been used to treat fungal skin infection such as ringworms, scabies, and eczema. It is clinically proven to be as effective as synthetic antifungal agents in the treatment of superficial skin infections.

Production Cost: N/A

Investment Cost: N/A

Licensing Fee: ₱500,000.00

Royalty Fee: 5% of gross sales

Proposed Price: ₱120.00 per Akapulco 50%
(2.5 grams of Akapulco leaves per
5mL tube)

Target Market: Producers of herbal/medicinal plants,
manufacturers (licensees), wholesalers/
distributors (licensees),
hospitals/pharmacies, and patients

Type of IP offered

- Utility Model

Registration Number

- PH-2-0-008134

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GUAVIDERM



Guaviderm is a natural antibacterial ointment for *Methicillin Resistant S. aureus* (MRSA), strain found in common bacterial skin infections in the Philippines. The ointment contains quercetin compound which can kill skin pathogens such as *Streptococcus* and *Staphylococcus*, even the Methicillin resistant strains.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	₱500,000.00
Royalty Fee:	5% of gross sales
Proposed Price:	N/A
Target Market:	Suppliers/producers of herbal/medicinal plants, manufacturers (licensees), wholesalers/distributors (licensees), hospitals/pharmacies, and patients

Type of IP offered

- Patent

Registration Number

- PH 1-2016-259

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HARD CARRAGEENAN CAPSULES PRODUCTION TECHNOLOGY



This technology involves production of hard capsules made from carrageenan, a natural gum extracted from locally abundant seaweeds, that can be used as substitute for imported animal-based gelatin capsules. This technology involves production of hard capsules made from carrageenan, a natural gum extracted from locally abundant seaweeds, that can be used as substitute for imported animal-based gelatin capsules.

Production Cost:	₱35,000,000.00 / year
Investment Cost:	₱34,800,000.00
Licensing Fee:	₱38,000.00
Royalty Fee:	1 to 2 % of gross sales on the second year of the agreement
Proposed Price:	₱554.00 / 1000 pcs per pack
Target Market:	Drug or food supplement manufacturer

Type of IP offered

- Utility Model

Registration Number

- 2-2011-000118

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LAGUNDI SYRUP



A remedy for cough and relief and control of asthma.

Production Cost:	Estimated values including raw materials and packaging - 300 mg / 5 ml ₱28.00 ~ ₱32.00 (60 mL) ₱38.00 ~ ₱42.00 (120 mL)
Investment Cost:	Estimated values for LTO and CPR for 3 years- as Drug Disitributor: ₱110,000.00 as Manufacturer: ₱125,000.00 (Operational cost, marketing expenses, pilot run, etc. are not included)
Licensing Fee:	₱500,000.00
Royalty Fee:	5% of gross sales
Proposed Price:	Actual market prices: ₱28.50 - ₱110.00 / (60 mL) ₱40.00 - ₱150.00 / (120 mL)
Target Market:	Producers of herbal/medicinal plants, manufacturers (licensees), wholesalers/distributors (licensees), and hospitals/pharmacies

Type of IP offered

- Utility Model

Registration Number

- PH 2-1999-00164

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LAGUNDI TABLET



A remedy for cough and relief and control of asthma.

Production Cost:	Estimated values including raw materials and packaging - P1.80 - 2.20 (600 mg/tablet)
Investment Cost:	Estimated values for LTO and CPR for 3 years- as Drug Disitributor: ₱110,000.00 as Manufacturer: ₱125,000.00 (Operational cost, marketing expenses, pilot run, etc. are not included)
Licensing Fee:	₱500,000.00
Royalty Fee:	5% of gross sales
Proposed Price:	Actual market prices: ₱0.94 - ₱6.50 / 300 mg; 600 mg tablets
Target Market:	Producers of herbal/medicinal plants, manufacturers (licensees), wholesalers/distributors (licensees), and hospitals/pharmacies

Type of IP offered

- Utility Model

Registration Number

- PH 2-1999-00164

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NATURAL ANALGESIC BALM



The natural-based analgesic balm contains pain-relieving effects of phyto-bioactives intended for external application to skin.

Production Cost: ₱5,970,000.00 / year

Investment Cost: ₱1,840,000.00

Licensing Fee: ₱85,000.00

Royalty Fee: 1 to 2 % of gross sales on the second year of the agreement

Proposed Price: ₱25.00 / 20 g bottle

Target Market: Healthcare, herbal industry, and MSMEs

Type of IP offered

- Utility Model

Registration Number

- 2-2010-000144

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SAMBONG TABLET



An herbal medicine that is clinically proven to dissolve kidney stones, and reduce size and number of urinary tract stones.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	₱500,000.00
Royalty Fee:	5% of gross sales
Proposed Price:	Actual market price:
	₱6.75 - ₱9.25 / 500 mg tablet
Target Market:	Producers of herbal/medicinal plants, manufacturers (licensees), wholesalers/distributors (licensees), and hospitals/pharmacies

Type of IP offered

- Patent

Registration Number

- PH 1-1997-57575

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SLIMMING CREAM



The product is a slimming agent containing phytobioactives of grapefruit oil and caffeine for production of fat-burning creams. As a safe and cost-effective alternative to more expensive formulations in the market, the Slimming Cream has significantly reduced weight, waist, and hip measurements during an eight-week clinical trial.

Production Cost:	₱5,250,000.00 / year
Investment Cost:	₱1,770,000.00
Licensing Fee:	₱85,000.00
Royalty Fee:	1 to 2 % of gross sales on the second year of the agreement
Proposed Price:	₱22.50 / 20 g bottle
Target Market:	Pharmaceutical manufacturer

Type of IP offered

- Utility Model

Registration Number

- 2-2010-000104

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TECHNETIUM 99M RADIOISOTOPES



A proprietary solution in the pre-treatment of alumina makes adsorption process more efficient and outputs clearer. The innovation is used in generating radiopharmaceutical tracers for over 80% of medical diagnostic procedures in nuclear medicine.

Production Cost / Investment Cost:

Will depend on the strategies and objectives of the business plan of a technology adoptor.

Licensing Fee / Royalty Fee:

Subject for negotiation between contracting parties and review of Fairness Opinion Board.

Proposed Price:

To be determined by the technology adoptor based on their profit and loss assessments and other business considerations.

Target Market:

Radiopharmaceutical distribution firms

Type of IP offered

- Utility Model

Registration Number

- N/A

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TSAANG GUBAT TABLET



An affordable herbal medicine helps relieve abdominal pain and diarrhea in adults. A single dose of this tablet relieves pain from these conditions within 30 mins to 1.5 hours.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	₱500,000.00
Royalty Fee:	5% of gross sales
Proposed Price:	₱5.00 - ₱8.00 / 250 mg tablet
Target Market:	Producers of herbal/medicinal plants, manufacturers (licensees), wholesalers/distributors (licensees), and hospitals/pharmacies

Type of IP offered

- Patent

Registration Number

- PH 1-2009-000197

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ULASIMANG-BATO



A drug formulation from ulasimang-bato extracts targeted to cure hyperuricemia and gout. Optimum dosage is recommended initially at 80 mg/kg/day, and then reduced to 40 mg/kg/day after 2 weeks. Formulation can significantly reduce serum uric acid levels comparable to allopurinol.

Production Cost:	N/A
Investment Cost:	N/A
Licensing Fee:	₱500,000.00
Royalty Fee:	5% of gross sales
Proposed Price:	4.00-7.00 / 500 mg tablet
Target Market:	Producers of herbal/ medicinal plants manufacturers (licensees), wholesalers/distributors (licensees), and hospitals/pharmacies

Type of IP offered

- Patent

Registration Number

- PH 1-2015-67

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YERBA BUENA TABLET



An analgesic drug from yerba buena extract clinically proven safe and effective in relieving moderate to severe post-operative pain after circumcision, dental extractions, and childbirth (post- episiorrhaphy).

Production Cost:

N/A

Investment Cost:

N/A

Licensing Fee:

₱500,000.00

Royalty Fee:

5% of gross sales

Proposed Price:

4.00-7.00 / 500 mg tablet

Target Market:

Producers of herbal/medicinal plants, manufacturers (licensees), wholesalers/distributors (licensees), hospitals/pharmacies, and patients

Type of IP offered

- Utility Model

Registration Number

- PH 2-2003-00427

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Venture Financing Program (VFP)

Aims to accelerate the commercialization of innovative technologies/inventions by providing the necessary funding support start-ups, SETUP beneficiaries, and other MSMEs. The Program shall determine and package the commercialization activities needed for a particular technology.

The Program has the following special facilities that provide distinct services to MSMES:

- a. Venture Financing Program (VFP) for start-up companies - utilizing emerging technologies and/or innovative technologies to improve production efficiency, increase income and sales, and improve product quality through the acquisition of required production equipment;
- b. Venture Financing for Environmentally-Sound Technologies (VFEST) - for the utilization of cleaner production technologies and/or equipment to comply with the Environment Related Clearances/Permits such as Environmental Clearance Certificates, Health and Safety Clearances, Sanitary Permits, Clean Air Act Certificate, Laguna Lake Development Authority Clearance, etc.;
- c. Support for Adoption of DOST Generated Technologies - acquisition of required production equipment needed by the technology transferee to commercialize its adapted DOST-Generated Technologies;
- d. Purchase Order Financing - acquisition of raw materials needed to produce the required quantity/volume of products/goods as reflected on the irrevocable PO's submitted by the SETUP and TAPI beneficiaries; and
- e. Fees for Certification of Local/International Standards - to enter the Local and International Market for DOST-funded technologies only.

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DOST-Academe Technology-Based Enterprise Development

The Program develops entrepreneurial competencies among students in selected academic institutions. DATBED supports income generating projects with technological innovation with market potential and technically viable when commercialized.

Stage I

- Support academic institutions and assist its students by providing financial assistance for technology-based enterprises development.

Stage II

- Provide funds to young professionals graduated from the DATBED-assisted academic institutions for the commercialization of their technology-based projects.

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Invention-Based Enterprise Development (IBED) Program – Component II

The Invention-Based Enterprise Development – Component II (IBED-II) Program provides support for men and women Inventors who has established their company through the commercialization of their Invention, Utility Model or Industrial Design. Funds for the project are provided to cover additional capital to be used for the acquisition of critical production equipment and/or raw materials for the purchase orders/client orders to address the growing demands for their products.

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LANDBANK - TAPI Innovation and Technology (I-Tech) Lending Program

The I-Tech Lending Program provides a special lending window through the Landbank of the Philippines (LBP) to complement the use of the Invention Guarantee Fund (IGF) as provided for the Republic Act No. 7459 (Inventors and Invention Incentives Act of the Philippines) to extend financial support to credit-worthy Filipino Inventors in the commercialization of patented inventions in the Philippines.

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Intellectual Property Rights (IPR) Assistance Program

The IPR Assistance Program provides assistance in securing intellectual property (IP) protection by TAPI pursuant to E.O. No. 128. The Program offers a holistic package of assistance for patent, utility model, industrial design, copyright and trademark applications for private individual inventors, various institutions, and researcher with privately funded R&D.

It also encourages creative research and inventive activities and investments in research and development by securing, for the inventors, the protection of appropriate IP rights and interests related to their inventions; and facilitates technology transfer.

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ACKNOWLEDGMENT

The editors would like to acknowledge the immense support of all the people involved in this project. Without their assistance, completing this book would not have become a reality.

First, to the Technology Transfer and Business Development Officers (TTBDOs) who have provided the information in the technology profiles featured in this book, our sincerest gratitude to the hard work and dedication of the following teams:

- DOST – ASTI Technology Licensing Office
- DOST – FNRI Business Development Unit
- DOST – FPRDI Technology Licensing and Promotion Section
- DOST – ITDI Business Development Section
- DOST – MIRDC Technology Advisory & Business Development Section (TABDS)
- DOST – PNRI Business Development Section
- DOST – PTRI Technology Transfer, Information, and Promotion Staff (TIPS)
- DOST – PCAARRD Technology Transfer and Promotion Division
- DOST – PCHRD Technology Transfer Unit
- DOST – PCIEERD Research Information and Technology Transfer Division (RITTD)

Secondly, the editors wish to acknowledge the valuable contributions of the project staff for their writing assistance, creative directing, technical editing, and proofreading that greatly improved the quality and content presentation of the technology profiles.

Lastly, our special thanks to the management of the Technology and Application Promotion Institute (DOST-TAPI) and the Office of the Undersecretary for Research and Development (OUSEC-RD). Their support and guidance have been the driving force to make this book possible.

We hope that this publication will help its end-users towards achieving the goal of the Technology Transfer Day Project - facilitate smoother and faster adoption and commercialization of the DOST-funded and -generated technologies.

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