Metals Industry
Research and
Development Center

Annual Report 2022

Metals and Engineering: Providing Crucial Support to Recovery Efforts of the Country

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MESSAGE from the SECRETARY

Science, technology, and innovation (STI) have always been crucial to improving the lives of people, and are essential in addressing challenges, especially during extreme situations such as the pandemic. The Department of Science and Technology (DOST), through its various line agencies, has been working hard in ensuring that the Filipino people are equipped with technologies and skills needed to thrive in the new normal. We have seen how various initiatives of the DOST Metals Industry Research and Development Center (DOST-MIRDC) contribute to the efforts of the country to recover and cope with the continuing effects of the pandemic.

Through the years, the research and development (R&D) initiatives of the DOST-MIRDC led to the creation of various technologies for mass transportation, defense, food processing, health, and agriculture, among others.

The Center has set up facilities such as the Advanced Mechatronics, Robotics, and Industrial Automation Laboratory (AMERIAL) and the Advanced Manufacturing Center (AMCen) to spur industries to exploit Industry 4.0 technologies; the Mold Technology Support Center (MTSC) to enhance skills in the field of die and mold, which provides a critical foundation to the manufacturing sector; and the Metals and Engineering Innovation Center (MEIC) to accelerate R&D and innovation culture in the regions.

I highly commend the DOST-MIRDC as it is steadfast in sustaining its R&D programs and S&T services to ensure that the country recovers from the COVID-19 pandemic. This year's annual report presents the DOST-MIRDC as a reliable partner that, despite the challenges, continues to drive the metals and engineering industries toward increased productivity through science, technology, and innovation.

Congratulations to the DOST-MIRDC! Mabuhay!

RENATO U. SOLIDUM, JR.
Secretary, DOST
and Chairperson, MIRDC Governing Council

MESSAGE from the EXECUTIVE DIRECTOR

The year 2022 has been equally challenging as the previous years due to the effects of the COVID-19 pandemic, which we are still experiencing. But the Department of Science and Technology – Metals Industry Research and Development Center (DOST-MIRDC) remains committed to its mission of translating our R&D outputs into meaningful and useful technologies and services.

The DOST-MIRDC mainly provides support to the metals, engineering, and allied industries through our various R&D programs and S&T services, which is presented to you, our dear partners, through this publication. This year's annual report, with the theme "Metals and Engineering: Providing Crucial Support to Recovery Efforts of the Country," features the Center's projects, services, and initiatives that are intended not only to boost the productivity and competitiveness of the industry but also meant to strengthen linkages among partners and stakeholders during these times when the economy is slowly but surely getting back on its feet.

With the metals and engineering industry as one of the pillars of the country's economy, the Center focused on providing R&D programs and S&T services that further support the manufacturing resurgence efforts of the country, make existing technology-based processes available to more industries, and increase the skills of the current workforce.

These accomplishments are made possible by the dedication of the men and women giving relevant service to the industries and to the country. Rest assured that we will continue to persevere and carry on with our dedication to serving our partners through science, technology, and innovation. With this, I am proud to present to you the DOST-MIRDC 2022 Annual Report.

ROBERT O. DIZON
Executive Director, MIRDC

Vision

Center of excellence in science, technology and innovation for a globally-competitive metals, engineering and allied industries by 2025.

Mission

We are committed to provide both government and private sectors in the metals, engineering and allied industries with professional management and technical expertise on the training of engineers and technicians; information exchange; quality control and testing; research and development; technology transfer; and business economics and advisory services.

Quality, Environmental, and Information Security Policy

We are committed to provide products and services to both the government and the private sectors in the metals and engineering and allied industries with the highest standards of quality and reliability within our capabilities and resources and aligned to our strategic direction, to comply with applicable statutory and regulatory requirements to plan and implement actions to address risks and opportunities and to continually improve the effectiveness of our Quality, Environmental and Information Security Management Systems in order to enhance customer satisfaction at all times.

We shall manage and control our activities in order to minimize adverse impacts on the environment, prevent pollution and safeguard the health and safety of all employees, stakeholders, customers, external providers, and the surrounding community.

Core Values

Professionalism

We adhere to the highest ethical standards of performance.

We value our work and are committed to perform to the best of our ability.

Responsiveness

We spearhead implementation of projects that address the needs of the metals and engineering industries.

We find solutions to real-life problems through science, technology and innovation.

Integrity

We act responsibly, work honestly, and encourage transparency.

Dynamism

We perform our jobs with vigor and enthusiasm.

We welcome change as an opportunity for growth and continual improvement.

Excellence

We adhere to world-class performance and continuous improvement in all we do.

We always do our best in every task/ endeavor.

2022

YEAR IN REVIEW

15 or 100% of
R&D projects completed

30 or 120% of
partnerships with public, private, and international stakeholders were created and maintained

100%
timeliness of projects implemented

7 or 116%
technologies transferred

31 or 124%
technologies diffused

100%
of requests for technology transfer delivered on time

100%
better or satisfactory rating on the Customer Feedback Survey from clients served

5,381
or 125%
technical services rendered

99.66%
of technical services provided on time

2,858
or 168%
unique clients served

₱ 24,144,672.65
revenue generated

2 **ISO Certification/ Accreditation maintained**

Research and Development

Design Improvement and Sea Testing of a Remote-Controlled Weapons System (RCWS)

The improved remote control for BUHAWI.

The project 'Building a Universal Mount for Heavy-Barrel Automated Weapon Integration' produced the BUHAWI prototype, which is an example of a remote-controlled weapons system (RCWS).

Through the Design Improvement and Sea Testing of an RCWS project, the charging and firing mechanisms of the BUHAWI were improved.

Aside from engaging in the design and development of a test kit simulator, the project team also conducted live open-sea testing and debugging. The BUHAWI performed exceptionally well when subjected to firing at different intervals at varying distances with sea state 3 conditions or waves as high as 1 meter.

Part of the project is the subsequent training of Philippine Navy personnel on the operation and maintenance of the developed equipment. These were done to assure the dependability and efficiency of the BUHAWI.

A 3D-printed model of the approved industrial design of the BUHAWI ready for commercialization.

Industrial Designing and Finalization of Production Drawings for the Commercialization of the BUHAWI

For the country to achieve a self-reliant defense posture, the DOST-MIRDC implemented the project "Building a Universal Mount for Heavy-Barrel Automated Weapon Integration (BUHAWI)." One of its main objectives is for the country to become self-sufficient in manufacturing weapons, ammunitions, and small arms, among others.

The BUHAWI prototype was successfully turned over to the Philippine Navy on 20 May 2022. This project involved the conduct of pre-commercialization activities: establishment of its industrial design, design review, and finalization of product drawing and manufacturing processes that will be used for mass production of the BUHAWI. The project developed and produced the final and approved industrial design of the BUHAWI technology.

Study on the Suitability of Acrylonitrile Styrene Acrylate (ASA) as Material for a 3D-Printed Statue

The project studied the performance of Acrylonitrile Styrene Acrylate (ASA) as a suitable material for a 3D-printed statue for local outdoor conditions. The project designed and developed a 12.5 ft. 3D printed statue as a study piece for the suitability of ASA for outdoor installation.

To test the suitability of ASA as a material for a 3D-printed outdoor statue, several batches of plastic materials made of ASA were subjected to weathering, tensile (Type I), compression, flexure, and water absorption tests. The samples were also made to undergo optical microscopy. Samples for testing refer to ASA materials in replicates observed at the MIRDC and the actual 12.5 ft Rizal statue located at the DOST Complex.

The 3D-printed plastic parts remained intact after all the testing activities. There were no signs of discoloration, distortion, and visual changes. The 3D-printed statue was intact as well, even after an intensity 4.0 earthquake was felt in Bicutan, Taguig City in July 2022.

This project demonstrates the practicality and suitability of using ASA and additive manufacturing technology for large constructions which can withstand wind load, earthquakes, and humidity.

The 12.5 ft., 3D-printed statue of Dr. Jose Rizal using ASA plastic as material for printing

The improved plastic shredder which can process ASA plastic.

Design Improvement of Small-scale Plastic Shredder Suitable for Acrylonitrile Styrene Acrylate (ASA) Plastic and Other Hard Plastic Wastes

The project addresses the wastage generated by 3D printers which utilize hard plastics as filaments. It modified an existing small-scale plastic shredder to accommodate thicker and more rigid materials like the ASA.

The project has generated one modified plastic shredder for ASA wastage. With this, the shredded plastic may be reused as raw material for 3D printing projects.

The installed Automatic Trash Rake which will improve the flood control operations in Malabon.

Development of Automatic Trash Rake for Malabon

This project developed and oversaw the installation of an automatic trash rake to keep floating debris, leaves, and other solid waste from entering the Malabon-Tullahan River system.

This initiative is according to the Clean Water Act of 2004, wherein the DENR EMB-NCR has proposed the designation of the Malabon-Navotas-Tullahan-Tinejeros River System as Water Quality Management Area (WQMA) in the NCR.

The trash rake facility is designed as an alternative measure to improve flood control operation.

The use of this technology has enabled the collection of waste in waterways faster and easier, especially during the rainy season.

Development of Local Electric Kick Scooter (LEKS) Project

The project developed and produced a prototype local electric kick scooter using both conventional and additive manufacturing.

The prototype was also able to withstand the designed working conditions; its performance was tested using the 1) brake test, 2) acceleration test, 3) incline test, and 4) range test.

The functional data showed that the prototype is comparable to the commercially available electric scooter designs. The LEKS can serve as an alternative means of transportation which may lessen the number of vehicles on the road and lead to environmental benefits.

The LEKS prototype being demonstrated by a DOST-MIRDC employee.

Development of a Locum Artificial Body for Radiation Analysis and Testing (LAB-RAT)

The project developed and produced phantom mice for radiation research. The LAB-RAT is a whole-body mouse model with x-ray radiation properties close to that of an actual mouse.

The LAB-RAT was developed in partnership with the DOST Philippine Nuclear Research Institute (DOST-PNRI). It will replace the use of live mice for radiation research and will be used for radiation therapy.

The 3D printed LAB-RAT which is meant to replace the use of live mice for radiation research.

The 3D-printed drone attachments which uses fewer materials without compromising its mechanical integrity.

Optimization and Rapid Prototyping of Aerial Drone Attachments

The project developed and produced lightweight 3D-printed drone attachments. The use of these attachments reduced the materials required by the drone, without compromising its mechanical integrity.

The drone attachments are designed for installation in light pollution luminance devices and light mobility devices to gather data for mapping, assessment, and characterization of light and air pollution.

A photo of the machine being used to automatically monitor old milling machines connected to the internet.

A Pilot Application of IoT for Machine Shop Monitoring System of MIRDC

The project involved the development and production of a cost-effective machine shop monitoring system. Two old milling machines were connected to the internet to automatically monitor their off, idle, and run status. The operator interface displays the real-time status of the machine and can manually indicate fault occurrences.

This project promotes and demonstrates to local enterprises how the use of Industry 4.0 technologies helps ensure efficient and accurate monitoring and machine shop operations, thus, optimizing machine shop capacity and increasing customer satisfaction.

The machine shop monitoring system developed by the project has a competitive edge versus similarly designed technology because it is customized to DOST-MIRDC machines and to the job acceptance process.

Rapid Prototyping of an Enclosure for a Large Surveillance Camera System

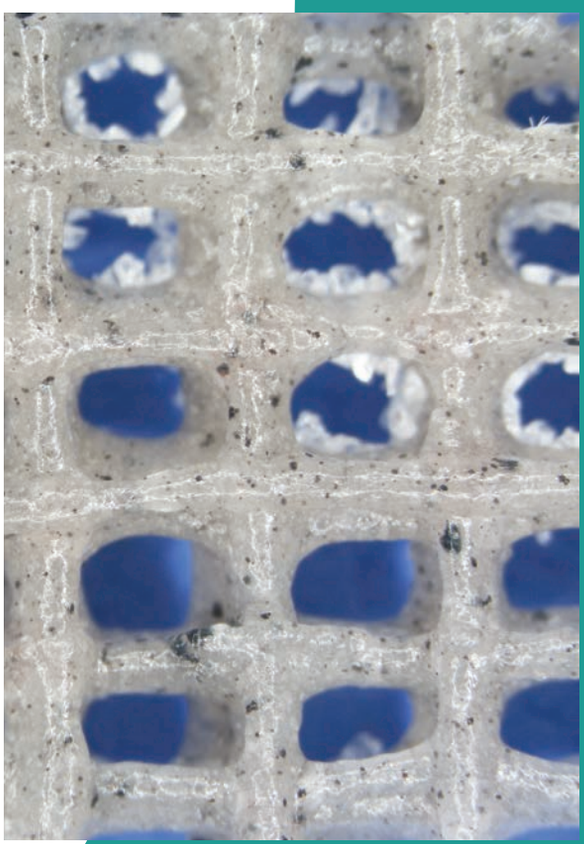
The project developed and produced an enclosure for the surveillance camera system of Project BUHAWI using additive manufacturing or 3D printing technologies.

The enclosure is for shielding the camera from the elements that the system is expected to encounter in operation and to make the camera more amenable to the public eye. The camera assembly also has potential use in the industrial and public sector as a large surveillance camera. The surveillance camera can be used for rescue operations, monitoring, and surveillance for large area and crowds, among others. It is fully automated with target tracking and locking.

A photo of the enclosure for BUHAWI's military-grade surveillance camera.

Three-Dimensional Printing of Micron-Sized Glass using Direct Ink Writing

The study developed and performed the process of 3D printing borosilicate glass using the direct ink writing technique as an alternative process to 3D printing of glass materials. This process can produce glass components with complex shapes and structures. It also offers a novel route for the high-precision processing of glass on the sub-millimeter level, which is difficult to achieve using traditional glass manufacturing techniques.

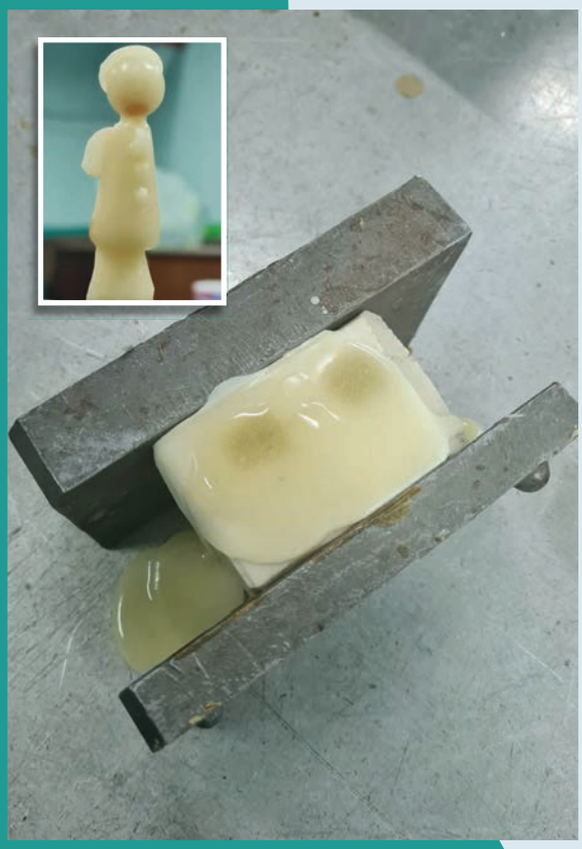


A photo showing the details of a micron-sized glass using direct ink writing technique.

The OXYCON. Inside is the DOST-MIRDC developed mechanical system integrated with the electrical system for connected oxygen concentrators.

Development of a Mechanical System for Connected Oxygen Concentrator (OXYCON)

The project developed a mechanical system of a connected oxygen concentrator that can supply a steady oxygen flow of ≤10L/min with 90% purity. This mechanical system is intended to be integrated with the DOST Advanced Science and Technology Institute (DOST-ASTI) Electronic Products Development Center's (EPDC) electrical system for connected oxygen concentrators. This project was developed to address the needs of patients with acute respiratory distress syndrome (ARDS), especially those struck by the COVID-19 virus.



A photo of the improved pattern wax material made of locally available materials.

Formulation, Development, and Characterization of Improved Pattern Wax Material for Investment Casting

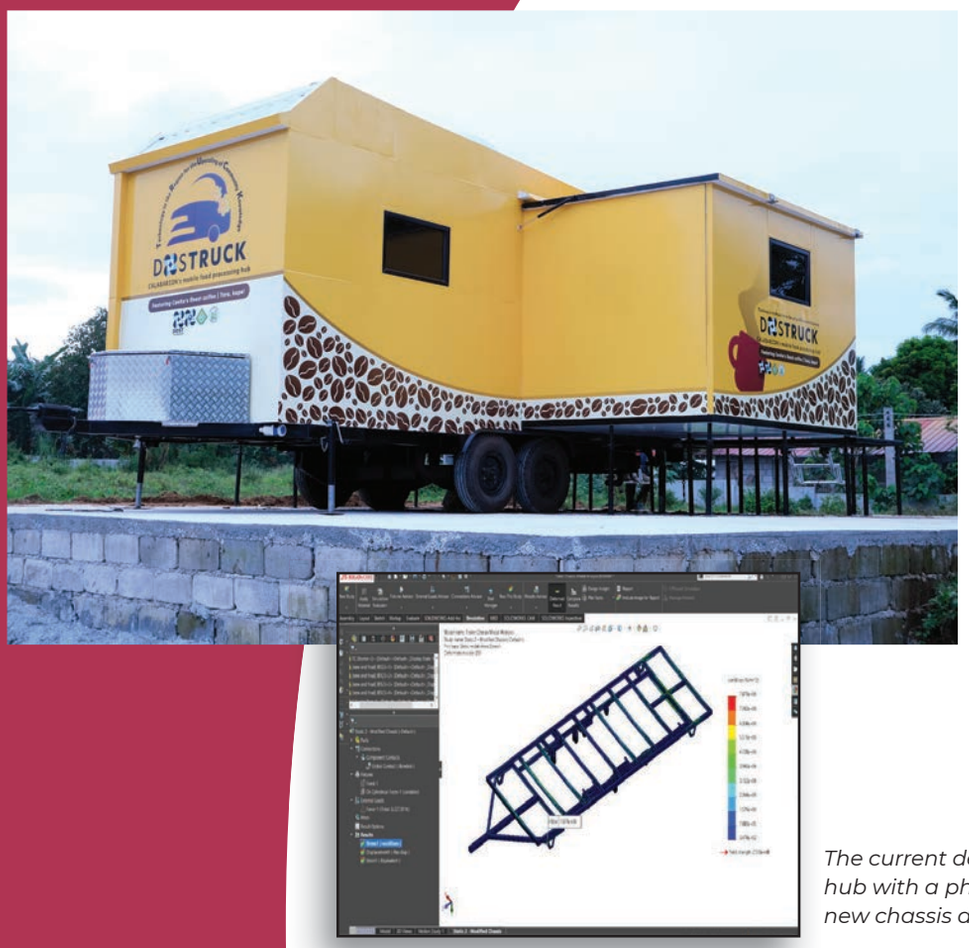
The project developed and produced an improved pattern wax material for investment casting. The introduction of additives such as polyethylene wax and hydroxyethyl cellulose resulted in an improvement in bending strength and shrinkage percentage.

The improved pattern wax is made out of 100% locally available materials, providing an option for our local investment casting industry to purchase the material locally, since most of the pattern wax materials being used are imported. Importing these materials entails higher costs, requires minimum order quantity, and needs a longer delivery lead time.

Design Improvement of Gear Shifting Mechanism for Riding-Type Rice TranspaInter

The project is part of a tripartite agreement between Philippine Rice Research Institute, MIRDC, and Rollmaster Machinery and Industrial Services Corporation. The project developed and produced an improved gear-shifting mechanism for the riding-type rice transplanter transmission system.

A riding-type rice transplanter with the improved gear-shifting mechanism being used by farmers.



Modal Finite Element Analysis of Chassis of the Deployable Food Hub

The project developed a new design to reduce the overall working weight of the deployable food hub using modal finite element analysis. The new design determined that the chassis will have a mass and stress reduction of 11.65% and 44.5%, respectively, from the original model of the trailer chassis.

The current deployable food hub with a photo inset of the new chassis design.

Special thanks to DOST-MIRDC's R&D partners:

DOST-NCR

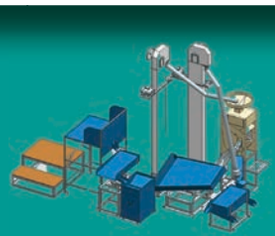
Technology Transfer

Upgrading of M&E Firms' Capabilities

Seven technologies developed by the Center were adopted by five licensees.

REGION	NAME OF LICENSEE	TECHNOLOGY ADOPTED	DATE COMMERCIALIZED
I	BESTMARK Agro-Industrial Manufacturing Corporation	Tent System	March 9, 2022
IV	Mariñas Technologies, Inc.	Retrofitted Rice Mill/ Compact Rice Mill Diverting Chute	April 22, 2022
IV	Lambs Agri Mechanicals	Decorticating Machine	May 20, 2022
XI	RAMPEC Enterprises	Vacuum Fryer Water Retort Freeze Dryer LPG-fired Spray Dryer	November 11, 2022
NCR	Gecar Machine Solutions, Inc.	Vacuum Fryer Water Retort Freeze Dryer LPG-fired Spray Dryer	July 11, 2022 (Renewal)

Tent System for Emergency Application


Retrofitted Rice Mill/ Compact Rice Mill Diverting Chute


Decorticating Machine


Vacuum Fryer


Modular Water Retort


Freeze Dryer


Spray Dryer

The DOST-MIRDC was engaged in a total of 395 manufacturing and fabrication shops in the various regions of the country;
the Center also conducted technology needs assessment (TNA) in five companies.

A

B

A

Automatic Trash Rake (ATR) Facility Turnover

The ATR Facility was turned over to the city of Malabon on May 27, 2022. This facility was developed to improve trash collection and declogging of drainage systems along the Malabon-Navotas-Tullahan-Tinajeros (MaNaTuTi) River System. The Center is optimistic that the ATR will be an effective alternative measure that will improve the flood control operation of Malabon.

B

BUHAWI Turnover and Stakeholders' Dialogue

The BUHAWI, a technology developed by DOST-MIRDC to contribute to the DND's Self-Reliant Defense Posture, was turned over to the Philippine Navy on May 20, 2022.

In its continued partnership with the DND, the country's defense forces, and the industry, the DOST-MIRDC held a BUHAWI Stakeholders' Dialogue on October 5, 2022.

This dialogue was held to push for the adoption of the BUHAWI, and to provide a platform to discuss possible future collaborations among its stakeholders.

Seminars/Workshops/Skills Training Programs Conducted by the Center

A total of 202 training programs were conducted by the Center. These include trainings on technical drawing, TIG welding, and value analysis/value engineering.

Mold Wizard Using NX

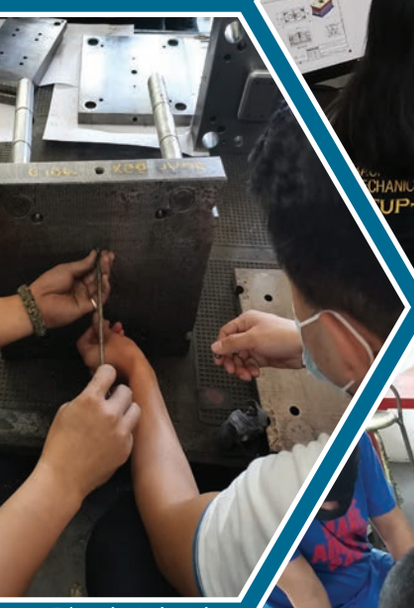
TIG Welding Training

Mold Assembly Using NX


Plastic Injection Molding
Machine Programming and Operation


CNC Milling Programming and Operation


Mold Wizard Using NX


Plastic Injection


Mold Assembly


Mold Assembly Using NX

TECHNOLOGIES FOR COMMERCIALIZATION

1. Building a Universal Mount for Heavy-Barrel Automated Weapon Integration (BUHAWI)
2. Hybrid Electric Road Train
3. Hybrid Electric Train
4. Automated Guideway Transit
5. Automatic Trash Rake
6. Integrated Wrought Iron Forming Equipment (iWIFE)
7. Tikog Flattening Machine
8. Pandanus Leaves Slitter-Presser
9. Abaca Fiber Stripping Machine
10. Tent System for Emergency Application
11. Water Retort
12. Rice Transplanter Attachment
13. Spray Dryer
14. Compact Rice Mill Chute
15. Rice Harvester Attachment
16. Electric Potter's Wheel
17. Superheated Steam Treatment System for Stabilized Brown Rice Production
18. Jigger & Jolly Machine




FACILITIES AT THE DOST-MIRDC

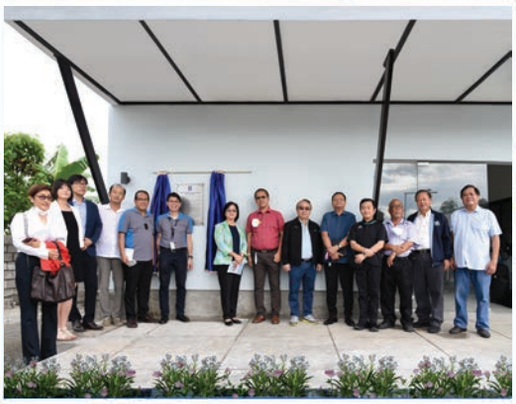
1. Advanced Manufacturing Center (AMCEn)
2. Physico-Chemical Laboratory
3. Non-Destructive Testing Laboratory
4. Physical Metallurgy
5. Mechanical Laboratory
6. Calibration and Metrology Laboratory
7. Advanced Mechatronics, Robotics, and Industrial Automation Laboratory
8. Surface Engineering
9. Metals and Engineering Innovation Center
10. Foundry
11. Mold Technology Support Center
12. Die and Mold Solution Center / Gear Making Facility
13. Auto-Parts Testing Laboratory

Facilities and Services in the Regions

MTSC

MOLD TECHNOLOGY SUPPORT CENTER

Built to serve the die and mold industry.



Mold Technology Support Center
Lot 434 Brgy. Bacao II, CEZ Gen. Trias Cavite, Philippines
Tel. No. +63 46 501 0943
Email: mtsc.mirdc@gmail.com

Scientific and Technical Services

Analysis and Testing

Chemical and Corrosion Analysis for Bureau of Philippine Standards Regulated Products

Deformed steel and angle bars		Wires		Safety Belts	
66 TSRs*	38 samples	2 TSRs	21 samples	4 TSRs	124 samples

Mechanical Testing for Bureau of Philippine Standards Regulated Products

Deformed steel and angle bars		Angle Bars		Wires	
41 TSRs	528 samples	9 TSRs	365 samples	2 TSRs	21 samples

PUV Dimensional Measurement for Department of Transportation

24	21	3
TSRs	PUV	Minibus

Calibration Services for Apparatus and Equipment of Department of Public Works and Highways

74	124	21
In-Plant and Inhouse Calibration of Balances, Furnace, Ovens Water Bath Thermometers	Test Sieves	Various Measuring Instruments

*Technical Service Request

17,300
samples tested/calibrated

4,167
testing and calibration services rendered

981
clients benefitting from technical services

61
consultancies conducted

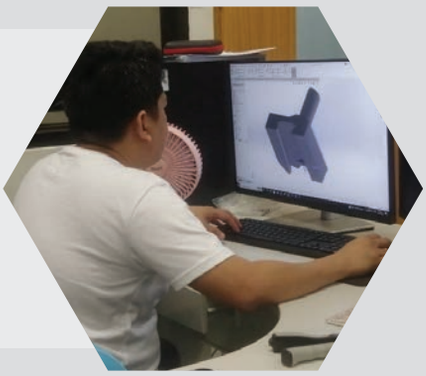
16,785,066
income generated from external jobs

1,286,715
forgone revenues from internal jobs

Technical Services Rendered

Mortar Sight Adaptor

The Philippine Army asked help from MIRDC in the localization of Mortar Sight Adapter. From a worn-out sample provided by Army Support Command (ASCOM), a restored 3D version is created and produced at MIRDC. DOST-MIRDC produced 10 additional pieces as requested by ASCOM.



Left and Right Bracket of Squad Automatic Weapon 5.56mm mk3

ASCOM sought help from MIRDC to produce their brackets. DOST-MIRDC produced the brackets and in the process, created fabrication drawing in preparation for mass production.

Localization of Machine Gun Part

DOST-MIRDC was tapped by the Philippine Air Force to come up with prototype model and produce it at the machine shop of MIRDC. The actual product passed initial testing by Philippine Airforce.

Mold for Kamico Enterprise

TSSS provided technical services through product design, mold design, production drawing, machining, mold assembly, and plastic injection testing. Ms. Zenaida Madrono of Kamico Enterprise shared that through the help of DOST-MIRDC, one can put up a plastic business without investing on equipment, especially if these are offered on time-sharing by institutions such as DOST-MIRDC.

Snacktong Mold

Like chopsticks, one can use the tongs to avoid food contamination. This could be very useful especially in times of pandemic. DOST-MIRDC was there to help from concept design, improvements, creation of mold, actual testing of mold, and fabrication of the snack tongs.

More Key Accomplishments

&

6
Intellectual Property Rights granted

1. A Mobile Work Station with an expanded platform for Collaborative Robot
2. Hand Tractor-Attached Rice Harvester
3. AMCen Techfest Winnovation Awards Celebrating Winning Innovations
4. Water Filter Column
5. Sugarcane Stripper
6. AMERIAL

883,107 **people reached by media campaigns and other activities**

5
peer-reviewed papers published

4
peer-reviewed papers presented in conferences

10
non-peer reviewed papers published

8
non-peer reviewed papers presented in conferences

2022 Major Events

2022 M&E Week Celebration

This event is held every third week of June; for the 2022 M&E Week celebration, the DOST-MIRDC held various free webinars, an Open House, M&E Skills Competition Awarding, and the Usapang MEIC.

Mold Technology Support Center (MTSC) Launching and Official Hand-Over Ceremonies

The MTSC was launched on 10 November 2022, located at the Cavite Economic Zone in General Trias, Cavite. The establishment of this facility is an Official Development Assistance (ODA) of the Republic of Korea to the Philippine government, and with funding counterpart from DOST-PCIERRD. This facility is intended to contribute to boosting the manufacturing capabilities of the country's die and mold industry.

1st National M&E Conference

The first ever National M&E Conference was held during the 2022 M&E Week Celebration. This conference saw the presentation of 33 technical papers related to M&E. 23 technical papers were published in the Philippine Metals 2022 Volume 9.

2022 Regional Science and Technology Week

The DOST-MIRDC showcased its technologies and services in the various 2022 Regional S&T Week celebrations in NCR, CAR, Regions I, II, III, VII, IX, X, XII. Some of the featured technologies and facilities were the Food Processing Equipment, Hybrid Trains, AMCen, AMERIAL, among others.

2022 National and Science and Technology Week

During the 2022 National S&T Week Celebration last November 2022 at the World Trade Center, the DOST-MIRDC participated in the exhibits which showcased AMCen's 3D printing technology and AMERIAL's 6-axis robotic arm. The Center also held five forums at the 2022 NSTW main stage featuring AMCen, BUHAWI, AMERIAL, MTSC, and MEIC.

Awards and Recognitions Received

A Potter's Wheel for Throwing of Clay
2021 DOST Utility Model Registration Award

Ronie S. Alamon	*Prototyping Division*
Raymond S. De Ocampo	*Analysis and Testing Division*
Joein L. Luces	*Prototyping Division*

A Clay Molding Equipment for Jiggering and Jollying Methods
2021 DOST Utility Model Registration Award

Ronie S. Alamon	*Prototyping Division*
Raymond S. De Ocampo	*Analysis and Testing Division*
Joein L. Luces	*Prototyping Division*

3D Printing of Metals Using Biodegradable Cellulose Hydrogel Inks
2022 DOST International Publication Awards

Carla Joyce C. Nocheseda	*Materials and Process Research Division*
Fred P. Liza	*Materials and Process Research Division*

Method of Producing Ink for 3D Printing of Metallic Structures and Ink Composition Obtainable Therefrom
2022 DOST Utility Model Registration Award

Carla Joyce C. Nocheseda	*Materials and Process Research Division*

MIRDC Model Employee

Level I
Tracy Ann U. Tolentino
Administrative Assistant V
Technology Diffusion Division

Level II
Carla Joyce C. Nocheseda
Senior Science Research Specialist
Materials and Process Research Division

Academic Awards (Graduates and Board Passer)

Mary Joy M. Bautista
Laboratory Inspector II
Analysis and Testing Division
Master of Science in Chemistry

Joein L. Luces
Science Research Specialist II
Prototyping Division
Master of Science in Mechanical Engineering

Rea C. Castro
Planning Officer II
Planning and Management Division
Electronics Engineer Licensure Examination

Core Values Award

Professionalism
Franz Joseph D. Libao
Senior Science Research Specialist
Prototyping Division

Responsiveness
Arnel T. Tuvillo
Administrative Aide VI
Finance and Administrative Division

Integrity
Jo Marie Venus T. Agad
Senior Science Research Specialist
Analysis and Testing Division

Dynamism
Osric Primo Bern A. Quibot
Senior Science Research Specialist
Technology Diffusion Division

Excellence
Eric B. Casila
Information Systems Analyst III
Planning and Management Division

Building the Team with Positive Culture

Here at the DOST-MIRDC, we value our employees' efforts and hard work that contribute to the Center's success. Building camaraderie between our various offices breeds a positive culture that enables us to work efficiently and harmoniously.

This year, when pandemic restrictions in the country were slowly lifted, we held face-to-face activities to promote our employees' health and wellness. These activities include the annual sports fest, DOST-MIRDC employees' day, and the year-end thanksgiving celebration.


ATD
MPRD

2022 Financial Statements

Utilization Rate Per Allotment Class

Allotment Class	Allotment*	Obligation Incured	BURS%
Personnel Service	178,971,854.52	177,489,517.00	99.17%
Maintenance and Other Operating Expense	34,149,421.75	34,149,421.75	100.00%
Capital Outlay	3,960,000.00	3,955,299.59	99.88%
RLIP	11,213,723.73	11,213,723.73	100.00%
LFP - MOOE	8,200,000.00	8,067,276.79	98.38%
LFP - CO	22,000,000.00	21,778,068.65	98.99%
Special Purpose Fund*	19,844,386.00	19,844,386.00	100.00%
Continuing Appropriation	527,642.77	516,166.46	97.82%
Total	278,867,028.77	277,013,860.47	99.34%

**change in amount of allotment due to reclassification/realignment*

MIRDC Organizational Structure

(As of December 2022)

Governing Council Members

RENATO U. SOLIDUM, JR.
DOST Secretary

ROBERT O. DIZON
Executive Director, MIRDC

JEREMY AGUINEA
Engineering Industry Sector

ANTONIO A. GIMENEZ
Allied Industry Sector

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Engr. Robert O. Dizon
Executive Director, MIRDC

Dr. Agustin M. Fudolig
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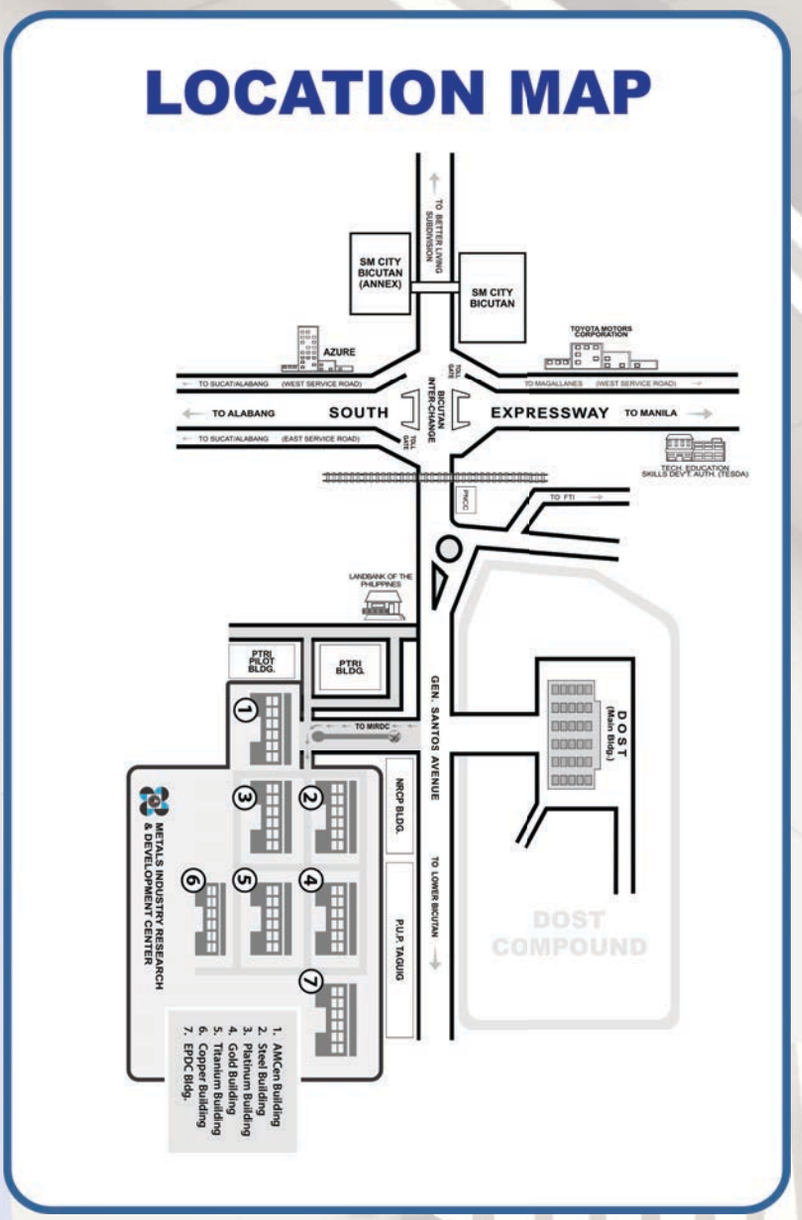
DOST-MIRDC Location Map



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MIRDC Hymn

Kaya Ko, Kaya Mo, Kaya Nating Lahat

Tungkulin mo't tungkulin ko
Paglingkuran lahat kayo
Buong husay, buong ingat
Sa lahat ng oras
Gamit ang Agham at Teknolohiya
Patuloy na manaliksik pa
Handog twina, bagong kaalaman
Industriyang metal mapayaman
Kung kaya ko, ay kaya mo
At kaya nating lahat
Lahat ng bagay na mabigat
Kung sama-sama'y mabubuhat
Ang pag-unlad matutupad
Kung matapat ang gaganap
Ikaw, ako, tayong lahat
Isusulong ang bukas

Koro 1
Kaya ko, kaya mo, kaya nating lahat
Industriya ay tutulungan, pribado o gobyerno man
MIRDC ang Sentro na magbubuklod nito
Ang tagumpay makakamit kung sama-sama tayo
Instrumental
Tungkulin ay gagampanan, kakayahan ilalaan
Tayo ay maglilingkod nang buong katapatan
Gagawin nang mabilis, lahat sa tamang paraan
At ating mararating tagumpay na inaasam
(Ulitin ang Koro 1)
Koro 2 (a capella)
Kaya ko, kaya mo, kaya nating lahat
Ating baya'y tutulungan, marating ang pag-unlad
Tayo ay magtulungan upang ating marating
Ang pag-unlad kung sama-sama'y kaya natin
(Ulitin ang Koro 1 at instrumental)
Kaya ko, kaya mo, kaya nating lahat

DEPARTMENT OF SCIENCE AND TECHNOLOGY
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