

## DOST 1's iSTART Program boosts the Balungao Tupig Makers through Innovation and Processing Technologies

The Department of Science and Technology Region 1 (DOST 1) held a training entitled, "Food Innovation Center Inventrepreneur School #6: Tupig Innovations and Processing Technologies for Increase Business Opportunities," to Balungao Tupig Makers Association on August 12, 2022, through the innovation, Science, and Technology for Accelerating Regional Technology-Based Development (iSTART) program... [continue reading in Page 10](#)



Member of Balungao Tupig Makers Association took part in the hands-on processing of tupig at the FIC processing area after the lecture.

### DOST 1 delivers Livelihood Training on Candle Making in Balungao District Jail

The Department of Science and Technology Regional Office 1 (DOST 1), through the Provincial Science and Technology Center (PSTC) in Pangasinan, conducted a livelihood training on candle making for the Persons Deprived of Liberty (PDL) on August 10, 2022, at the Bureau of Jail Management and Penology (BJMP) - Balungao, Pangasinan District Jail... [Continue reading in Page 5](#)

### DOST 1-SETUP releases 9.7M fund to 14 Pangasinan MSMEs

A total of Php 9,765,600 Small Enterprises Technology Upgrading Program (SETUP) fund of the Department of Science and Technology Region 1 (DOST 1) was released to 14 firms in Pangasinan this year...

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### DOST 1 releases P2,125,260.00 to food firm SETUP beneficiaries

CITY OF SAN FERNANDO, LA UNION-The Department of Science and Technology Region 1 (DOST-1), through its Provincial Science and Technology Center- La Union (PSTC-LU), released ₱2,125,260.00 worth of financial assistance to three (3) food firms under Small Enterprises Technology Upgrading Program (SETUP)...

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# EDITORIAL PAGE

*Hi there, S&T friends!*

I am proud to present to you the various accomplishments of DOST 1 for the month of August 2022, through this Ilocos S&T Trends issue.

It has been a busy month of project implementation and monitoring for the DOST 1. Inter-agency collaborations for community development were also carried out.

This issue stages the endeavors of DOST 1 across the areas of Kabuhayan, Kaayusan, Kalusugan, and Kinabukasan.

## On Kabuhayan...

The Small Enterprise Technology Upgrading Program (SETUP) and the Community Empowerment through Science and Technology (CEST) programs provided back-to-back technical, and financial assistance. Among the businesses that received assistance were the Balungao Tupig Makers, RFG Wood Works, and Kajonas Food Products, as well as other businesses in the engineering, food, and metal industries. You can read the remaining newsletter to learn about the other industries aided and how you can receive the same assistance.

## On Kaayusan...

For DOST 1, this month has been significant because the Intellectual Property Office of the Philippines (IPOPHL) and the agency teamed up to establish an IP Help Desk at the Provincial Science and Technology Office-La Union. This will make the IPOPHL more accessible to people in the nearby La Union area who need help.

## On Kalusugan...

I'm excited to tell you about the team-building activity we recently completed, which focused more on social and mental health than just physical fitness. The three-day exercise included a seminar on maintaining a mentally healthy workforce. As was previously stated, a productive workforce and good management go hand in hand with good mental health at work. On the other hand, a current Good Manufacturing Practices awareness seminar was also held to encourage healthy, proper food hygiene among two associations in Ilocos Sur.

## On Kinabukasan...

A few trainings have been held to enhance knowledge, strengthen livelihoods, and empower gender-sensitive communities. The Gender Sensitivity Trainings, Basic Information and Communication Technology (ICT) Skills Training, Fisherfolks Training in Ilocos Sur for Tilapia Project, Basic Bookkeeping and Marketing Strategy Training, in collaboration with other agencies who are experts in the various fields mentioned, are some examples.

These, and a lot more updates on the different activities of DOST 1 are included in this newsletter. Continue reading to fully comprehend the staff's and its stakeholders' collective efforts to bring science closer to the people of region 1.

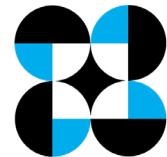
Enjoy reading!

*Maluhay ang DOST, Maluhay ang Region 1!  
Maluhay ang DOST 1!*



**CARLA JOYCE B. CAJALA**

Editor-in-Chief, Ilocos S&T Trends



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## DOST 1-SETUP releases 9.7M fund to 14 Pangasinan MSMEs

By: Bernalyn P. Martinez



Fourteen (14) entrepreneurs in the different cities and towns of Pangasinan received financial fund from DOST 1 to adopt technological innovations and improve the operations of their businesses.

A total of Php 9,765,600 Small Enterprises Technology Upgrading Program (SETUP) fund of the Department of Science and Technology Region 1 (DOST 1) was released to 14 firms in Pangasinan this year. SETUP is one of the flagship programs of the DOST nationwide.

These 14 entrepreneurs are under the region 1's priority sectors. Micro, Small, Medium Enterprises (MSMEs) under the Metals and Fabrication are Tarectecan Iron Works from Burgos, Pangasinan with Php274,400 fund, RFG General Merchandise of San Carlos City received Php 350,000, RDG Machine Shop of Dagupan City with Php730,000, and Brod Head Trading of San Carlos City received P452,000.

While under Food Processing industry is Jarold's Food Products from Dagupan City with Php 50,000 fund assistance; while Gerrilaide Farm of Bolinao received P2,016,000, DL Hatchery and Balut Industry from San Jacinto received Php 1,096,200, Trixz Mushroom Products Trading of Binalonan received Php182,000, JPD Poultry Farm from Umingan with P1,450,000 and Daniella Merz Rice Mill of Sual received Php 1,075,200 under the Agriculture Sector.

Firms under Furniture and Gift and Decors Fashion Accessories, such as Bandulf Industries of San Carlos City received Php 450,000, Yamban Enterprise from Urdaneta City received Php 590,000, Bartolome Fine Furniture of Lingayen with

Php 830,000, and Php 220,000 for Entrepreneurs Toward Rural Economic Progress Multi-Purpose Cooperative from Alaminos City.

The SETUP fund will support the MSMEs by providing seed fund for technology acquisition, needed equipment and equipment upgrading, technical trainings and consultancy services, product testing, packaging and label design and support for establishment of product standards and testing.

The DOST 1 will continue to provide interventions to the MSMEs through Technical Assistance and Consultancy Services (TACS), capability building such as seminars and trainings, and marketing support through oneStore.

# DOST 1 delivers Livelihood Training on Candle Making in Balungao District Jail

By: Monique C. Esguerra

The Department of Science and Technology Regional Office 1 (DOST 1), through the Provincial Science and Technology Center (PSTC) in Pangasinan, conducted a livelihood training on candle making for the Persons Deprived of Liberty (PDL) on August 10, 2022, at the Bureau of Jail Management and Penology (BJMP) - Balungao, Pangasinan District Jail.

The BJMP in Balungao intends to equip PDLs with skills to have a potential source of living upon returning to their families.

The training consists of making two (2) types of candles, the sperma or molded candle and the dipped

candle. Ms. Bernalyn P. Martinez, DOST 1 - PSTC Pangasinan staff, discussed the materials needed and the procedures in making candles by using clear wax and molders. On the other hand, Mr. Julian R. Viray, DOST 1 - PSTC Pangasinan staff, explained the different methods of making candles by using waste wax to the participants and gradually demonstrated how to make it.

A hands-on training was conducted afterwards, where the participants presented their output using the different designs and techniques provided.

Candle making is a very sustainable business with a small investment. candles are not only profitable in the

month of November to honor saints and souls of the departed as observed by most of Filipinos, but also, they serve as decorations for ceremonies, weddings, homes, funerals, among other purposes.

Senior Jail Officer II (SJ02) Benigno Tecan expressed his gratitude to DOST 1 and looks forward to more trainings from the agency. DOST aims to expand Science and Technology Innovation (STI) assistance to communities and the production sector, particularly to Micro, Small and Medium Enterprises which is also in line with the Sustainable Development Goal 9 (SDG9) – Industry, Innovation and Infrastructure.



## DOST 1 conducts water sampling collection and calibration caravan in Burgos, La union

By: Christian Jastine V. Mendoza



Mr. Raymond P. Espe (PA-III), DOST 1 conducted Calibration Caravan in front of the Burgos Municipal Hall to cater the calibration needs of the Brgy Health Centers.



Ms. Jasmine Ericka M. Casaclang, SRS I of DOST 1 - RSTL, collected water samples from the springs where in CEST communities of Burgos stream their drinking water.



DOST 1 Regional Metrology Laboratory (RML) represented by Mr. Raymond Espe calibrating scales in the Burgos Public Market.

The Department of Science and Technology (DOST-1) through Provincial Science and Technology Office- La Union (PSTC-LU) office, in cooperation and partnership with the Local Government Unit of Burgos, La Union (LGU) conducts Water Sampling Collection and Calibration Caravan last August 9 and 10, 2022.

Community Empowerment through Science and Technology (CEST) Program, under Health and Nutrition priority area, aims to ensure that drinking water sources in the communities are safe and potable. In the same way, calibration of scales weighs as important to ensure the accuracy of the equipment being used to measure weight, height, etc.

Mr. Christian Jastine V. Mendoza (PA-II), CEST-Focal person, together with Mr. Jaypee A. Solee (PA-II), CEST-Regional Staff, and Ms. Jasmine Ericka M. Casaclang (SRS-I) from DOST-Regional Standard Testing Laboratory, accompanied by Mr. Bryan Aromin, LGU-Burgos Agriculturist, trekked the mountains of Burgos, La Union to reach the springs on which the CEST communities of Burgos stream their drinking water from to collect samples subject to Phychem (pH, total hardness, total dissolve solids, chlorides, calcium, sulfates) and Microbiological (total coliform, fecal coliform, E.coli) testing. A total of 11 samples for Phychem testing amounting to Php46,800.00 and 21 samples for microbiological testing amounting to Php 25,200.00 were collected from the identified water sources. The total value of assistance is at Php72,000.00.

### CALIBRATION CARAVAN

**45**

scales  
were calibrated

**P 12,600**

total value  
of assistance

## DOST 1, IPOPHL ink MOU to establish IP help desk in PSTO-La Union

By: Eiryz Clyde Angelique D. Orpilla

Through a Memorandum of Understanding (MOU), the Department of Science and Technology Region 1 (DOST- 1) and the Intellectual Property Office of the Philippines (IPOPHL) signed a partnership for the establishment of IP Help Desk at the Provincial Science & Technology Center- La Union (PSTC-LU) on August 25, 2022.

The partnership aims to embark on projects that will incentivize Micro, Small, and Medium Enterprises (MSMEs) and motivate them to use IP assets as competitive business tools. The continued existence of IPOPHL's satellite offices in strategic areas of the country will help ensure accessibility and effective utilization of the IP system by MSMEs.

The MOU was signed by DOST 1 Regional Director Dr. Armando Q. Ganal, La Union Provincial S&T Director Mr. Jonathan M. Viernes, Deputy Director General and Head of IP Field Operations Atty. Nelson O. Laluces and IPOPHL Area Manager Engr. Emmanuel M. Mendoza.

Engr. Edison M. Acosta, Science Research Specialist II of DOST 1, acknowledged the honorable guests. Mr. Viernes welcome all the guests who joined face-to-face and online platform.

In his Opening Remarks, Director Ganal enjoined the partner agencies to avail the opportunity that they can get from the partnership. "It's just an arm away from your offices and let us take it with open arms," he added.

As provided in the MOU, the DOST 1 shall continue to support and assist IPOPHL by providing workspaces for IPOPHL's Helpdesk.



**"One of IPOPHL's strategic initiatives is to expand its geographical reach through the creation of IP Help Desks, with the Trade and Industry and investment profile of La Union, the decision to set up an IP Help Desk in the province was not hard."**

**-Atty. Nelson O. Laluces**  
Deputy Director General and Head of IP Field Operations





DOST 1 Officials and staff from Regional Office and Provincial Offices pose for a group photo.

## **DOST 1 conducts Team Building activity, visits DOST III assisted firms**

By: Carla Joyce B. Cajala

**S**AN JOSE DEL MONTE, BULACAN- The Department of Science and Technology Region 1 (DOST1) held its team building activity entitled, "Strengthening Camaraderie and Building a Mentally Healthy and Gender-sensitive Workforce of DOST 1;" on August 22-24, 2022, at Kidz Discovery Camp, San Jose del Monte, Bulacan.

The activity build a mentally healthy and gender-responsive workforce in this time of pandemic through a seminar on mental health awareness and gender sensitivity and gender-responsive governance, strengthen the inter-personal relationships of each staff through good communication, team building and sports activities to encourage teamwork, development, and growth, and learn best practices from project implementations of other DOST

The three-day activity comprised of a seminar on Gender Sensitivity, Mental Health Awareness, Orientation on Quality Management and Orientation on Office Policies on the first day, Team building activities with land and water sports on the second day and Project Visits to DOST III Small Enterprise Technology Upgrading Program (SETUP) cooperators on the third day.

Dr. Rolando Mina Mamaat, a Registered Psychologist and Freelance Motivational Speaker, discussed the Gender Sensitivity concepts and encouraged a gender-sensitive workforce as a sign of respect to one another. On the second part, Dr. Mamaat shared tips on how to maintain a holistic well-being through maintaining a healthy body, sound mind and peaceful soul.

Meanwhile, Mr. Decth-1180 P. Libunao, Officer-in-Charge for Field Operations talked about the different points under the Quality Management System and how can everyone contribute towards the attainment of its goals and success.

The second day of the event comprised of land and water activities for all the DOST 1 staff. The six (6) teams have competed physically in the daytime and showcased their talent performances in the evening which ended with the awarding ceremony.

To cap of the set of activities, project visits were conducted on the third day to three (3) DOST III SETUP firms namely, Allied Metals Inc., Cyber Jhamz Enterprises, and Jennie's Pork Chicharon which are in Bulacan.

## TEAM BUILDING ACTIVITIES



## PROJECT VISITS



ALLIED METALS INC.



JENNIE'S PORK CHICHARON



## DOST 1's iSTART Program boosts the Balungao Tupig Makers through Innovation and Processing Technologies

By: Monique Esguerra

*from page 1...*

The activity was spearheaded by the Provincial Science and Technology Center in Pangasinan (PSTC-Pangasinan), in partnership with Pangasinan State University-DOST1 Food Innovation Center (PSU-DOST1 FIC) that provided innovative processes to "tupig" makers through the technologies developed by the PSU-DOST 1 FIC such as Vacuum Packed "Tupig" and Oven-Baked "Tupig" and to engage Balungao "Tupig" Makers Association in adopting "tupig" innovations and processing technologies to increase the association's business ideas and opportunities.

The "tupig" or the famous rice cake in Pangasinan is made with glutinous rice, brown sugar and coconut meat. It is rolled with banana leaves and grilled over hot coals. The traditional practice of "tupig" makers rely on estimates in making their batter, that results in inconsistent taste, texture and sweetness of the product. The rice cake usually last up to 3 days in a room temperature. With these problems, the FIC team came up with a method to standardize the taste of their product and prolong its shelf life.

Ms. Meryl A. Bernardino, MS Graduate Fellow and PSU-DOST 1 FIC researcher conferred the "tupig" processing and the different variety of tupig in Pangasinan. Moreover, Asso. Prof. Veronica C. Austria, Associate Professor V and Faculty Researcher at PSU Bayambang introduced the use of oven for cooking rice cake and the innovation of different flavors. She also presented the best recipes that they experimented and standardized.





## DOST 1 conducts On-Site Halal Assessment to La Union Food Firms

By: Jara G. Acoo

**C**ITY OF SAN FERNANDO, La Union – To ensure the compliance of food processing firms with Halal standards, the Department of Science and Technology Region 1 (DOST 1) through the DOST Halal Research Ecosystem for Development and Innovation (REDI) Tourism Program and Provincial S&T Center - La Union, conducted an on-site Halal assessment to four (4) Food firms in La Union on August 16 and 18, 2022.

Halal assessment is one of the technical assistance and consultancy services (TACS) offered by DOST to Micro, Small, and Medium Enterprises (MSMEs) who are engaged in the manufacturing of food and personal care products, food services, and tourism establishments. This assessment aims to ensure that they are following the regulatory requirements of the government and

help them comply with the Philippine National Standards on Halal before they applied for the Halal certification.

DOST 1 Halal auditors Mr. Decth-1180 P. Libunao and Mr. Hero D. Galamgam together with the Halal Project staff, Ms. Jara G. Acoo and PSTC-LU staff, Ms. Michaella P. Cabading assessed the processing facilities of Lomboy Farms, Aiza's Dressing Plant, Bebangs Binalkot and Seafoods Grill Restaurant, and Calica's Fruit Product. These firms were evaluated based on the checklist developed by the DOST Halal S&T program adopting the procedures of the Halal certification scheme that focuses on the organizational structure, premises, plant construction, and design, sanitation and good hygiene practices, production and process control, documentation, storage and distribution, product recall and

retention of the product sample and most especially their compliance in food safety and current Good Manufacturing Practices (cGMP) which includes Islamic religious aspects as well.

The initial findings and recommendations between the auditors and the owner were discussed after the assessment. The final copy of the assessment report will be provided to the firm which will serve as a guide in preparation for their application for Halal certification.

For more information, interested MSMEs, tourism establishments, and enterprises who want to avail themselves of DOST TACS, particularly, consultancies in Halal, may visit the nearby DOST offices in your respective provinces or may send their inquiries to this email: [redihalal.dost1@gmail.com](mailto:redihalal.dost1@gmail.com).

## DOST 1 strengthens its Gender-responsive and Mentally Healthy Workforce

By: Carla Joyce B. Cajala



**S**AN JOSE DEL MONTE, BULACAN- The Department of Science and Technology Region 1 (DOST 1) conducted a seminar on Gender Sensitivity Training and Mental Health Awareness during its three-day team building activity entitled, "Strengthening Camaraderie and Building a Mentally Healthy and Gender-sensitive Workforce of DOST 1," on August 22, 2022, at Kidz Discovery Camp, San Jose del Monte, Bulacan, in its goal to build a mentally healthy and gender-responsive workforce in this time of pandemic the DOST 1.

DOST 1 Assistant Regional Director for Finance and Administrative Services, Atty. Jasmin C. Banez, welcomed the participants and urged them to engage the activity to holistically grow and care for themselves. She added that this is an opportunity for them to unwind and rejuvenate before ultimately getting back to work.

Dr. Rolando Mina Mamaat Jr., a Registered Psychologist and Freelance Motivational Speaker, discussed the Gender Sensitivity concepts and encouraged a gender-sensitive workforce as a sign of respect to one another. Dr. Mamaat imparted the typical general expectations of what should be expected of a man and a woman and shared how can we overcome these perceptions.

On the second part, Dr. Mamaat provided recommendations on how to preserve a holistic state of well-being by preserving a sound body, mind, and soul. The importance of eating well, getting enough sleep, drinking enough of water, and exercising regularly was emphasized. In addition, Dr. Mamaat provided some exercises that the staff could use to stay active despite their busy schedules. He also boosted the confidence of the staff by giving thoughts to ponder despite painful or difficult situations. Dr. Mamaat then guided the group in a brief meditation to help them reconnect with their objectives and refocus themselves.

Meanwhile, Mr. Deeth-1180 P. Libunao, Officer-in-Charge for Field Operations spoke about the various aspects of the Quality Management System and how everyone may contribute to the achievement of its objectives and success. Additionally, he discussed the value of team-building exercises in enabling workers to contribute more effectively at work.

Dr. Armando Q. Ganal, DOST 1 Regional Director commended Dr. Mamaat for a worthwhile lecture and thanked the personnel for their active involvement. He explained that this activity will not only assist the workforce as a whole but also more specifically each employee's personal growth and development.

The seminar, which was attended by 50 male and 44 female DOST 1 staff, made up the first day of the team-building exercise and provided the participants with insightful conversations and practical lessons they can apply to their everyday life.

## DOST 1 Features RD Leaders under the Science for Change Program (S4CP)

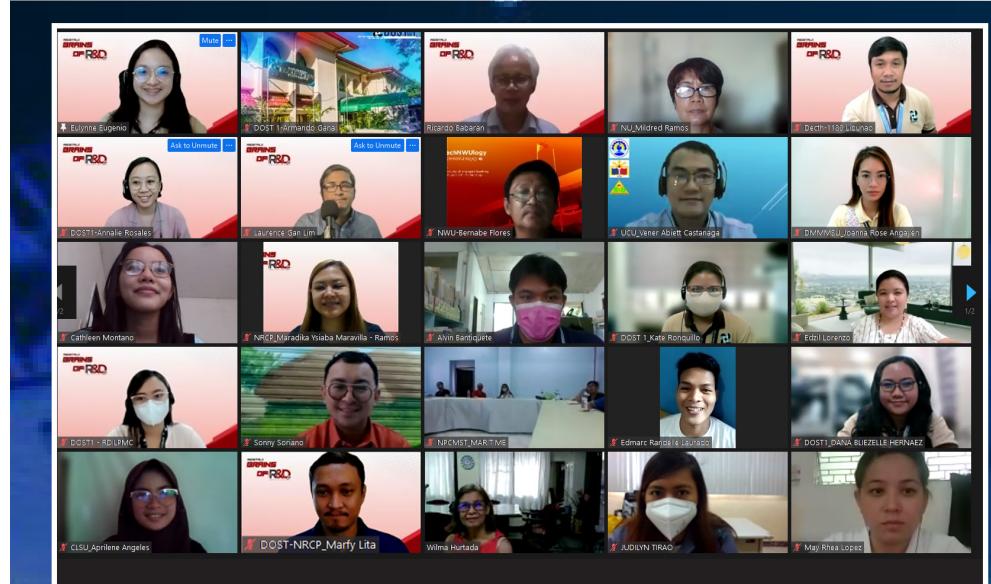
By: Xyla Lielle S. Cave

In celebration of the National Heroes Day, the Department of Science and Technology Region 1(DOST1), through the Research and Development and International Linkages Program Management Center (RDILPMC), conducted a webinar AgosTalk; Brains of R&D on August 31, 2022 via Zoom and Facebook Live.

The webinar focused on the holistic view of the contributions, journey and R&D engagements of our RD leaders residing in our countryside who are known to be game changers, trailblazers, and innovators. Dr. Wilma A. Hurtada, RD Leader of the University of Science and Technology of Southern Philippines (USTP), Dr. Ricardo P. Babaran, RD Leader of Capiz State University, and Dr. Laurence Gan Lim, RD Leader of Don Mariano Marcos Memorial State University (DMMMSU), shared their journey and engagement as well as their pieces of advice in research and development.

Dr. Hurtada, a retired Professor at University of the Philippines Los Baños (UPLB), and UP Scientist I, emphasized the concept of "ripples to waves" and how these small steps of her research career brought her to bigger waves. She also emphasized the characteristics of being a good researcher, as she remarked, "When you do research, you must bring something new to an already established body of knowledge".

On the other hand, Dr. Babaran, a Professor of Fisheries at the University of the Philippines Visayas (UPV), shared his R&D engagement and insights when working in collaboration and how these concepts can affect their research and extension.



*The participants in the AgosTalk: Brains of R&D webinar showed their smiles on the camera for a virtual group photo.*

**“Minsan mauubos na yung papel minsan nagluluha na yung mata mo kasusulat, kababasa tanong dito tanong doon. Lagi kong sinasabi padayon pag patuloy naten hanggang makuha natin. ”**

-Dr. Wilma A. Hurtada  
RD Leader of the USTP



Meanwhile, Dr. Gan Lim, a Full Professor, a former Chair, and currently the Graduate Program Coordinator of the Dept. of Mechanical Engineering of De La Salle University (DLSU) in Manila, Philippines, highlighted his research engagements on scientific writing, evaluations on research proposals particularly water level control, sea-salt production, onion production to name a few.

To close the event, DOST 1 Officer-in-Charge for Field Operations Dechth-1180 P. Libunao said, "Science ambassadors' you are the modern heroes we are confident that you will continue to lead, transform, and inspire others to engage in R&D. Our scientific technological and innovative solutions will surely lead to a higher productivity and better quality of life.



PSU experts received certificates of appreciation for sharing their skills and knowledge to the teachers of different public schools in Pangasinan.



## DOST 1's CEST, PSU provide Basic ICT Skills Training to Beneficiary Schools in Agno

By: Monique C. Esguerra

The Department of Science and Technology Regional Office 1 (DOST 1), through the Provincial Science and Technology Center in Pangasinan (PSTC - Pangasinan), in partnership with Pangasinan State University (PSU) conducted a two-day Training on Basic Information and Communication Technology (ICT) Skills on August 17-18, 2022 at Agno Central School, Poblacion West, Agno, Pangasinan.

The activity is part of the Community Empowerment through Science and Technology (CEST) program of the Department of Science and Technology Region

1 (DOST 1) which brings science, technology, and innovation to the grassroots community under Human Resource and Development, particularly to geographically isolated public schools, to improve teachers' skills and educational competence in information and communication technology under Human Resource and Development.

A total of 20 participants attended the training composed of the beneficiary schools namely: Agno Central School, Aloleng Elementary School, Juan Niño Elementary School and Calomboyan Elementary School.

Experts from PSU-Lingayen Campus, Mr. Jay C. Rico discussed the Microsoft Excel and Advance Excel whereas Mr. Elmar B. Noche conferred Microsoft Powepoint and Canva App. On the other hand, Mr. Robert V. Ocampo, Jr. explained the importance of Email Ethics and Cyber Security.

Mr. Raymond Bryan M. Esmenda enlightened the participants in Basic Computer Troubleshooting Problems and its solutions. Afterwards, the PSU Experts provided consultation and troubleshooting on the computers and other gadgets of the participants.

## DOST Intensifies Tilapia Project; Preps Fisherfolks in Ilocos Sur with Training

By: Noemi Loren G. Aguto

The Department of Science and Technology Regional Office 1 (DOST) thru its Provincial Science and Technology Center - Ilocos Sur (PSTC-IS), conducted a Training on Good Aquaculture Practices and Fish Health Management on Tilapia Production to second batch of beneficiaries for the project "Tilapia para sa Pamayanahan sa Amianan" in Sta Catalina, Ilocos Sur last August 31, 2022.

The new fifteen (15) fisherfolk beneficiaries who participated in the training are from Sta. Catalina and Caoayan, Ilocos Sur with eight and seven participants, respectively.

Engr. Jordan L. Abad, Provincial Director of PSTC-IS, stated that this training is the first step in achieving the objectives of the project in providing assistance of post-lockdown period through Tilapia farming. He also added that the assistance given to the beneficiaries is a package, which include training, fish cage materials, fingerlings and feed supplies.

In behalf of Mayor Edgar R. Rapanut, Mr. Richard Rapadas, Fishery Coordinator of Sta. Catalina, welcomed the participants and shared that there is a proposed hatchery for various fishery commodities that will supply the entire province addressing the lack of fry supply.

Mr. Gilbert B. Pulido, Aquaculturist II of BFAR, served as the resource speaker of the training. He discussed the good management practices in tilapia production from cage construction to harvest practices. He also emphasized the importance



Fisherfolk beneficiaries received their certificate of participation in the Training on Good Aquaculture Practices and Fish Health Management on "Tilapia" Production.



Mr. Gilbert B. Pulido, Aquaculturist II of BFAR discussed the good management practices in "tilapia" production and good aquaculture management.

of prioritizing the stocking density with the right species of fingerlings to deploy considering the water parameters in the area preventing fish kills.

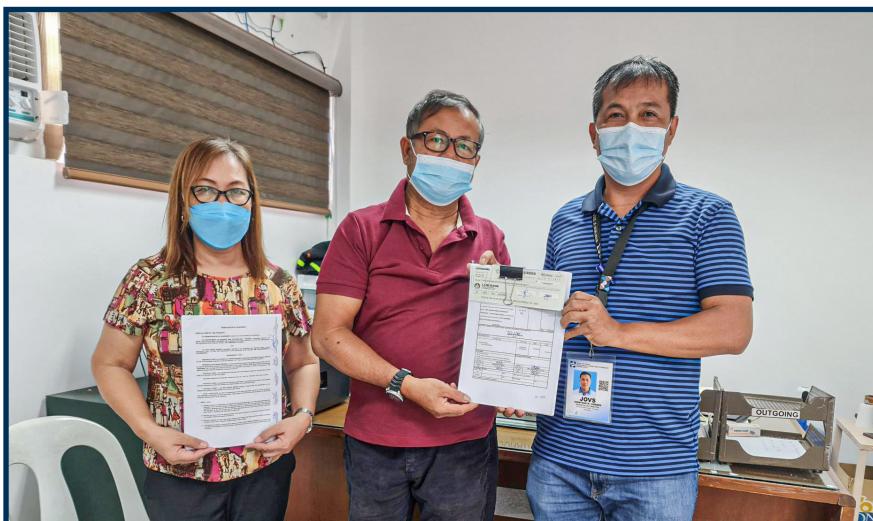
In addition, Mr. Pulido elaborated the effects of parasites, bacterial, fungus and viral in tilapia and the first remedy to control the diseases during the training. He mentioned that the key for high production yield is to practice good aquaculture management.

Meanwhile, the training was followed by a validation of sites for the second cropping of the project in Sta. Catalina.

The training was in collaboration with the Local Government of Caoayan, the Local Government of Sta. Catalina, and the Bureau of Fisheries and Aquatic Resources - Region 1 (BFAR).

## Elyu firms receive P1.765 Million funding support from DOST 1

By: Eiryz Clyde Angelique D. Orpilla



The Department of Science and Technology Region 1 (DOST 1), through its Provincial Science and Technology Office- La Union (PSTO-LU) awarded P1,765,000.00 worth of financial assistance to four (4) firms under Small Enterprise Technology Upgrading Program (SETUP) on August 3 and 8, 2022.

The beneficiaries comprise of firms that are into furniture making and from the metals and engineering sector, namely, (1) RFG Wood Works, (2) Villanueva Furniture Shop, (3) MARBIE Motor Works and (4) Three King's Enterprises.

For the furniture sector, RFG Wood Works, located at Luna, La Union, received a fund worth P265,000.00. Villanueva Furniture Shop is located at Bacnotan, La Union and received PHP 250,000.00. The fund will be used for the acquisition of a 3-in-1 Phase Inverter machine and a Tenoner machine to upgrade their production process and equipment.

For the metals & engineering sector, MARBIE Motor Works, an auto repair shop located at City of San Fernando, La Union was approved for SETUP Phase II and received a fund worth of P250, 000.00 for the acquisition of a milling machine to eliminate the outsourcing process of the firm. And lastly, the Three King's Enterprises which is into spandrel-making, located at Bauang, La Union received fund worth P1,000,000.00 for the acquisition of a spandrel machine to upgrade its existing process and improve their efficiency.

The funds were awarded by the Provincial Director Jonathan M. Viernes and was assisted by project assistants, Engr. Eiryz D. Orpilla, Ms. Michaella P. Cabading and Mr. Christian Jastine V. Mendoza

## AWS: A huge boost to Sugpon, Ilocos Sur

By: Carla Joyce B. Cajala

### What is an Automated Weather Station (AWS)?

An automated weather station (AWS) is a traditional weather station that has been automated, either to save labor or to enable measurements from remote locations. An AWS typically consists of a weather-proof enclosure that houses the data logger, rechargeable battery, telemetry (optional), and meteorological sensors, mounted on a mast with an attached solar panel or wind turbine. Due to the system's intended use, the precise configuration may change. Either a single site or a weather network may have them. Automatic weather stations are the worldwide standard for climate and boundary-layer meteorology.

These stations most commonly report on surface weather observations like Temperature, Wind Speed, Wind Direction, Precipitation, Humidity, Solar Radiation, Atmospheric Pressure, and Visibility.



The Automated Weather Station in Sugpon, Ilocos Sur was installed in 2017. According to Mayor Daniel Laño Jr. in tDOST 1's radio interview program, "Tekno Presyensya: Syensa ken Teknolohiya Para Kadagiti Umili" held on July 28, 2022, prior to receiving an AWS, they relied on the DOST- Philippine Atmospheric, Geophysical and Astronomical Services Administration (DOST-PAGASA) for weather advisories and conventionally updated their community on the forecasted weather. But with the presence of the AWS which was installed in their municipality, through the Community Empowerment thru Science and Technology (CEST) Program, they were able to automatically generate the weather updates specifically the heat index and rain fall level. On the same radio interview program, Mr. Demy Lubrin, Local DRRM Officer II of Sugpon, Ilocos Sur, he discussed their capability to alert the people of Sugpon ahead of any rise in the heat index or increase in the rain fall level with the utilization of their social media account or through the warning devices set up around their community.

Through this, the people are informed whether they should continue their activities in the farm or whether they need to head to evacuation areas as the rain fall might warrant landslides. Geographically, Sugpon, Ilocos Sur is prone to landslides, and flooding.



In addition, Mayor Laño said that by eliminating the need to rely on DOST-PAGASA information, the installation of AWS in their municipality helped with municipal planning. They can readily generate the data from the AWS.

Meanwhile, Engr. Jordan L. Abad, Provincial Director of the Provincial Science and Technology Center (PSTC) in Ilocos Sur, who was tasked to be the co-host for the episode, discussed how the AWS significantly benefited the community over time. He was a witness to how Sugpon, Ilocos Sur transitioned from using a traditional weather forecasting method to a modern weather monitoring system and a community that was more engaged and informed because of the DOST DRRM technology installed in their municipality.

For those who are interested in the installation of AWS in their areas, they may write a letter addressed to the DOST Regional office or coordinate with the nearest PSTC in their province.

## CEST MOA Signing Ceremony

By: Jerwin M. Ramos



The Department of Science and Technology Regional Office 1 (DOST 1), together with its partner Academic Institutes, and five (5) beneficiary Local Government Units (LGUs), signed the Memorandum of Agreement on Community Empowerment through Science and Technology (CEST) program on August 19, 2022 to increase stakeholder commitments and full support towards an inclusive partnership that will bring breakthroughs in science, technology, and innovations to Region 1.

The CEST program is a continuing development effort for underprivileged communities in the Ilocos Region. It helps the national government's mission to end poverty, improve living conditions, guarantee food security, and create a safe and healthy environment. The signing ceremony served as a platform for shared knowledge of the roles and responsibilities of all program implementers in achieving the program's goals.

During the ceremony, Ms. Racquel M. Espiritu, DOST-1 Assistant Regional Director for technical services, delivered the rationale of the activity highlighting the milestones of the CEST program in Region 1.

Meanwhile, partners from LGU Adams, Mariano Marcos State University (MMSU) and National Commission on Indigenous Peoples (NCIP) in Ilocos Norte, LGU Sto. Domingo, University of Ilocos Philippines (UIP) and Technical Education and Skills Development Authority (TESDA) in Ilocos Sur, LGU Burgos and Don Mariano Marcos Memorial State University (DMMMSU) in La Union, LGU Mapandan, LGU Umingan, Pangasinan State University (PSU) and Unibersidad de Dagupan (UdD) in Pangasinan, expressed their congratulations and assured the commitment and support for the success of the undertaking.

Present in the virtual signing ceremony were DOST 1 Regional

Director Dr. Armando Q. Ganal, Assistant Regional Director for Technical Services, Ms. Racquel M. Espiritu, CEST program leader, Mr. Decth 1180 P. Libunao, DOST Provincial S&T Directors and CEST Project Management and Implementer; University Presidents of partner State University Colleges (SUCs) and Higher Education Institution (HEIs); the Municipal Mayors and delegates from the LGUs of Adams, Ilocos Norte, Sto. Domingo, Ilocos Sur, Burgos, La Union, Mapandan and Umingan in Pangasinan, partners from National Government Agencies (TESDA 1 and NCIP 1), and all beneficiaries of the CEST program, represented by their respective Punong Barangays.



## DOST 1's CEST program provides Training on Basic Bookkeeping and Marketing Strategy in Bautista, Pangasinan

By: Monique C. Esguerra

The Department of Science and Technology Regional Office 1 (DOST 1), through the Provincial Science and Technology Center in Pangasinan (PSTC - Pangasinan), in partnership with Pangasinan State University (PSU) conducted a two-day Training on Basic Bookkeeping and Marketing Strategies on August 15-16, 2022 at Barangay Vacante, Bautista, Pangasinan.

The training is part of the Community Empowerment through Science and Technology (CEST) program of DOST 1 which provides a package of Science and Technology interventions to the less-privileged communities to uplift their living conditions, empower them through trainings and develop their capabilities,

develop livelihood opportunities, and establish enterprises, and improve science learning.

A total of 17 participants attended the training which composed of the members of Barangay Vacante Development Council, Diaz Farmers Association and Palisoc KALIPI Women Association.

Experts from PSU-Lingayen Campus, Mr. Philip Cesar Segurola shared his knowledge on the application for business permits, licensing process and statutory compliance while Dr. Abelardo Abalos explained the factual marketing strategies. On the other hand, Mr. Cliff Ervin David introduced the basic bookkeeping and emphasized

the importance of keeping financial records and cost calculation. Ms. Sheena Doria discussed E-Marketing and the art of selling.

Bautista Mayor Joseph G. Espino extended his biggest thanks for the assistance brought by DOST 1 and PSU and reminded the associations to give their full efforts to avoid spiteful happenings to the industry.

True to its goal in supporting the national governments' intentions of eradicating poverty, raising livelihood, ensuring food security as well as providing a healthy and physically safe environment, the DOST 1, through its CEST Program, will continue to provide S&T interventions to empower communities here in Region 1.



## DOST 1 releases P2,125,260.00 to La Union food firm SETUP beneficiaries

By: Michaella P. Cabading



*from page 1...*

...namely, Kajonas Food Products, Mama Carmen's Meat Shop and Lomboy Farms at the DOST 1 PSTD La Union last August 3 and 10, 2022.

Kajonas Food Products in Bauang La Union is known in the province for their palm oil product. The firm received a fund worth P1.370 Million for the acquisition of oil filling machine set to improve their production process and service quality.

Mama Carmen's Meat Shop is into meat processing (Garlic Flavored Pork Longaniza). The meat shop is located at Ma. Cristina West, Bangar, La Union. The firm received P275,260.00 for the upgrading of their production process and equipment.

Lomboy Farms is famous with their grape farm, they pioneer grape farm in the Philippines and has expanded not only in producing grapes but also other fruits such as guapples and pitaya. They are also known as one of the best wine producers in La Union. The firm received P480,000.00 to improve the operation of wine production business.

Before awarding the check to the SETUP beneficiaries, PSTD Jonathan M. Viernes reiterate the responsibilities of both parties, as stipulated in the Memorandum of Agreement, throughout the duration of the project.

SETUP is a DOST flagship program that aims to assist the micro, small and medium enterprises (MSMEs) produce quality products, boost productivity, and sustain marketability by upgrading technology and equipment and strengthening their innovation capability. DOST 1 was able to assist some client-MSMEs in the region engaged in food processing, metals and engineering, furniture, gifts, decors & handicrafts, agriculture, marine, and aquaculture.

For more information about DOST SETUP, visit the office at Government Center, Sevilla, City of San Fernando, La Union or reach us through email at [launion@region1.dost.gov.ph](mailto:launion@region1.dost.gov.ph).

## DOST 1 strengthens awareness to food safety of two Associations in Ilocos Sur

By: Raymond E. Alip

The Department of Science and Technology Regional Office 1 (DOST 1), through the Provincial Science and Technology Center - Ilocos Sur (PSTC-IS) strengthened food safety knowledge of the Community Empowerment Thru Science and Technology (CEST) assisted associations of Narvacan and Burgos through the conduct of an awareness seminar on Current Good Manufacturing Practices (cGMP) at Ilocos Sur Polytechnic State College, Sta. Maria Campus last August 12, 2022.

Twenty-five (25) food processors from Ikan ti Sulvec Dur-as ti Asosasyon (ISDAlicious) of Brgy. Sulvec, Narvacan, and Mapanit Squash Processing Association of Brgy. Mapanit, Burgos, Ilocos Sur participated the seminar. They were equipped with the importance of food safety, food hygiene, and good manufacturing practices increasing their awareness for better food quality of their produce.

During the opening program, Dr. Gilbert R. Arce, ISPSC President, introduced the plans and programs of the university and its transition to becoming a university. "Thankful tayo ta adda ti DOST ken ti ISPSC nga mangtulong ti kalugaran tayo nga mangittransfer ti technologies nga naaramid," (We appreciate DOST and ISPSCP's assistance in transferring these technologies to our community) he emphasized.

Engr. Jordan L. Abad, Provincial S&T Director also encouraged the participants to listen and take note to the lectures of the seminar. "Dagitoy nga programa or livelihood ket mangted kuma ti namnama kadatayo tapnu agtultuloy tayo latta despite dagiti natural calamities ken Covid a mapaspasaran tayo" (We are hopeful



that these initiatives or means of support will inspire us to carry on in the face of the danger posed by natural disasters and COVID).

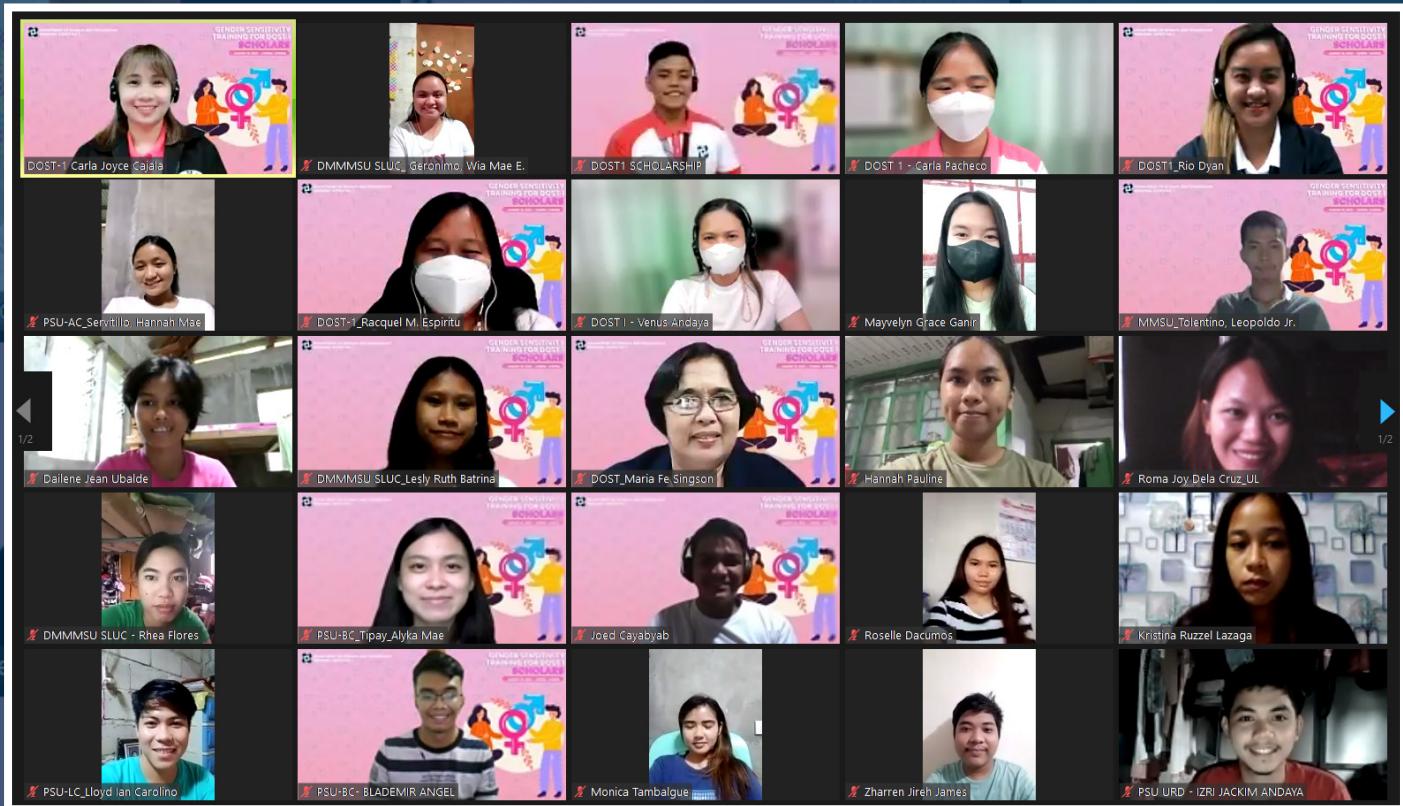
Ms. Lourdes Cabatu, Vice President of ISDAlicious, was grateful to the activity and to all the interventions for the improvement of their association and their production. On the other hand, Ms. Merly Abalos, member of Mapanit

Squash Processing Association also expressed her gratitude to DOST 1 for reaching their remote barangay to bring the assistance that will help them to be productive.

Mr. Hero D. Galamgam, SRS I of DOST-1 Regional Standards and Testing Laboratory (RSTL) served as the resource speaker during the seminar. He discussed topics on Food Safety Hazards, Good Manufacturing Practices, and Basic Food Hygiene.

## DOST1 conducts Gender Sensitivity Training for DOST 1 Ongoing Scholars

By: Rio Dyan B. Adviento



The Department of Science and Technology Region 1 (DOST-RO1), through its Gender and Development (GAD) unit, administered a webinar entitled, "Gender Sensitivity Training for DOST1 Ongoing Scholars" on August 15, 2022, via Zoom platform.

The activity aimed to raise awareness and understanding among the DOST scholars under RA 7687, MERIT and RA 10612 about GAD concepts and to appreciate women and men's roles and benefits of having a gender sensitive and responsive society.

Dr. Armando Q. Ganal, DOST1 Regional Director and Chairperson of the GAD Focal Point System (GFPS),

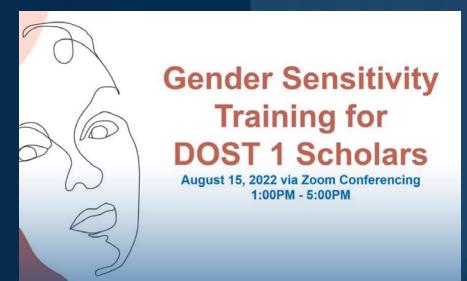
urged the scholars to know and appreciate gender and development more.

Meanwhile, Ms. Maria Fe B. Singson, Supervising Science Research Specialist of DOST GAD Program, presented her lecture covering five (5) topics which includes the data of men and women, policy imperatives, basic GAD concepts, Gender Mainstreaming and Philippine GAD Mainstreaming strategy.

A total of 85 scholars consisting of 56 females and 29 males from different State Universities and Colleges in Region 1 actively participated in the event.

To conclude the webinar, DOST 1 Assistant Regional Director for Technical Services and Chairperson of GFPS Technical Working Group, Ms. Racquel M. Espiritu, expressed her gratitude for the in-depth discussion and for everyone's participation.

To achieve SDG 5 – Gender Equality, DOST 1 will keep holding webinars through its GAD program to provide not only the DOST scholars but also its other stakeholders with information on gender equality and a deeper knowledge of GAD concepts.



## DOST 1's Calibration Services in Focus

### "Every kilo is worth every peso"

By: Carla Joyce B. Cajala

The Department of Science and Technology Region 1 (DOST 1) through its Regional Metrology Laboratory (RML), is a Philippine Accreditation Bureau (PAB) PNS ISO/IEC 17025:2005 accredited calibration laboratory, with the highest insignia of recognition for testing and calibration services. It undertakes both in-house and on-site calibration for the standardization of mass, volume, pressure, linear and temperature to public and private sectors, Local Government Units (LGUs), research or academic institutions and other stakeholders. The RML which is a part of the DOST Regional Standards and Testing Laboratory- 1 (RSTL-1), together with the Chemistry and Microbiology laboratories, offers trainings on mass and volume calibration and conducts free calibration caravans to selected LGUs on a specific period of time. Last 2021, they have received a total of 4,824 samples with 10,782 test or calibration conducted and served 2,321 customers which brings to a total of Php 5,636,309 total fees collected.

During the 26th episode of the DOST 1's Tekno Presyensya radio program, in collaboration with DZAG Radyo Pilipinas Agoo, entitled, "Tekno presyensya: Syensa ken Teknolohiya para Kadagiti Umili" on August 11, 2022, which featured



the DOST 1's calibration services, the RML discussed and showed the various services that they offer in the laboratory. Engr. Bernadine P. Suniega, RML Technical Manager, talked about their activities in the lab and explained the importance of an accurate and precise measuring instrument. He reiterated that with the right measurement, we get our money's worth.

On the other hand, the Calibration Engineers demonstrated how they calibrate the different equipment that they service. Engr. Raymond Espe

demonstrated on how they calibrate weighing scales to ensure that every household who goes out to the market to buy goods takes home what they have paid for, while Mr. Erwin Padua showed how he calibrates tankers and imparted how significant it is to ensure that the tankers are precise in their measurements. Likewise, Engr. Marlon R. Orpilla discussed his routine maintenance of fuel dispensing pumps and stressed the importance of calibrating this equipment in order to provide consumers with accurate fuel.

*If you're interested in getting DOST 1-RML calibration services, you can go to the Provincial Science and Technology Center in La Union, or you can write a letter to the regional or provincial S&T center to ask for on-site calibration services.*

## What is Calibration?

Calibration is a process to ensure that measuring equipment yield accurate measurements. Measurements made by a test instrument are compared to measurements made by a reference device, with known accuracy, during calibration. For businesses, it is crucial for quality assurance and compliance across a wide range of industries. Calibration of measuring instruments has two objectives which include checking the accuracy of the instrument and determining the traceability of the measurement. In practice, calibration also includes repair of the device if it is out of calibration.

