

## MIRDC Celebrates its Partnership with the Industry in the 2017 M&E Week



DOST-MIRDC Executive Director leads the ribbon cutting ceremonies during the opening of the exhibits.

The Metals and Engineering (M&E) Week is an event etched in the heart and mind of the DOST-Metals Industry Research and Development Center (DOST-MIRDC) ever since the issuance of Presidential Proclamation No. 144 which identified the third week of June each year as the M&E Week. This year, the M&E Week was

held from June 19-23, with all the events conducted inside DOST-MIRDC facilities. Themed 'PartnerShape 2017: Strengthening Alliances, Forging Linkages, and Transcending Challenges

for Progressive M&E Industries,' all activities were aimed toward focusing the spotlight on the significance of collaborations in molding the M&E industries as a better, more competitive enabler of the country's economy.

The week began with the celebration of the Holy Mass which continued on with the blessing of the newly renovated Titanium Building. Shortly after the ceremonies, DOST-MIRDC Top Management, along with special guest DOST-Technology Application and Promotion Institute (DOST-TAPI) Director, Engr. Edgar I. Garcia, and DOST-MIRDC employees gathered in front of the entrance arch of the technology exhibits and bazaar for the ribbon-cutting.

The week was studded with important highlights. Among these are the well-attended Open House, info-seminars, and demo ride of the Automated Guideway Transit (AGT) offered for free to the public. These activities served as avenues where partners and stakeholders alike are kept abreast of various issues trending within the M&E circle. Happening simultaneously, these were the Center's way of reaching out to as many stakeholders as possible in order to spread the word that technologies can make learning fun, doing business more profitable, and dealing with everyday life safer and more convenient.

*Continuation on p3*

## MIRDC Features its Latest Technologies and Facilities in the 2017 NSTW

Themed as "Science for the People," the 2017 NATIONAL SCIENCE TECHNOLOGY WEEK (NSTW) was celebrated on 11-15 July 2017 by the Department of Science and Technology (DOST). The observance of the NSTW aims to raise the Filipinos' awareness of how the development of the country is influenced by science and technology, and at the same time, to sustain the public and private sectors' interest and support for S&T's sustainable development.

The events lined up for 2017 NSTW were simultaneously conducted at the World Trade Center, Metro Manila and at the Philippine Trade Training Center both

in Pasay City. The NSTW showcased the major research and development (R&D) and science and technology services (STS) on manufacturing, transport and services, food and

*Continuation on p4*

### In this issue

- » MIRDC, KOAMI and PDMA Set the Wheel in Motion for the MTSC Project
- » Electronics Top Ph Exports; East Asia Market Expands
- » Metal Industry Cautious on Exports
- » Philippine Electronics Industry Poised for Continued Growth - SEIPI
- » MIRDC Provides FREE Online Business Portal for the M&E Sector
- » Aton Marketing: Goes All the Way to the Top

## From the Executive Director .....

Technology transfer is one of the most challenging, yet very exciting, tasks of the DOST-MIRDC. The Center is an active participant of the DOST's Techno Caravans and Technology Transfer Day. We joined the Tech Transfer Day held at the Waterfront Hotel in Cebu City in June, and another one held at the Zen Hotel in Isabela in August. Both events were successfully concluded with technologies licensed to Ral's Trading and Electromechanical Services in Cebu City and to AGRICOMP Machineries and Construction Corp. in Isabela.

In June, we supported the Mechatronics and Robotics Society of the Philippines (MRSP) in the conduct of the Mid-Year Techno-Conference on Mechatronics and Robotics. In the celebration of the 2017 Metals and Engineering (M&E) Week, we renewed partnership with various industry associations, hosted an industry exhibit, launched the Gear Making and Assembly Facility and the Industry Wing inside the newly renovated Titanium Building, and focused synergized efforts for our in-house Technology Transfer Day initiative. The Tech Transfer Day resulted to seven letters of intent with 32 technology requests.

The DOST-MIRDC was once again an active part of the DOST's National Science and Technology Week (NSTW) celebration. Exhibits were held on 11-15 July 2017 at the World Trade Center, simultaneously with technology fora at the Philippine Trade Training Center, both in Pasay City. The DOST-MIRDC showcased the Advanced Transportation Program by means of interactive videos, as well as the Gear Making and Assembly Facility, Die and Mold Solution Center, and the Auto-Parts Testing Facility (ATF) via the Virtual Reality technology. The ATF, the 12-hp Single Cylinder Diesel Engine, and the Superheated Steam Treatment System were the MIRDC projects highlighted in the techno fora. From these activities, the Center successfully raised the awareness of its stakeholders about the various services and technologies it offers to meet their unique and specialized requirements.

In August, the Center sent participants to an Industry 4.0-related seminar/workshop; showcased the Gear Making and Assembly Facility in the 2017 Philippine Die and Mould

Machineries and Equipment Exhibition (PDMEX), an exhibition spearheaded by the Philippine Die and Mold Association, Inc. (PDMA); and held a Seminar on Understanding the ISO/IEC 27001:2013 attended by Top Management and selected employees identified to help establish the MIRDC Information Security Management System (ISMS). This is a prelude to more demanding ISMS targets in the coming months.

We joined in the Nationwide Simultaneous Earthquake Drill, one in late June and another in mid-July, to constantly raise awareness so that our staff are always prepared should the dreaded 'Big One' suddenly become a reality. We also have fun. Recently, we had the 2017 MIRDC Teambuilding Activity and participated in the DOST Sports Fest. We value the promotion of work-life balance among employees. More importantly, it is both through the serious and not-so-serious activities that we get to strengthen camaraderie and nurture our Team MIRDC mindset.

As always, we gladly share all our successes and learnings with the industry. The MIRDC's meaningful initiatives are brought about by its determination and focus. The S&T-based interventions, as well as the strategic partnership we offer to the industry stem from the Center's responsiveness and agility. The challenge is on all of us, the MIRDC family and all our stakeholders, to continue to work hand-in-hand for a sustained globally competitive performance.



**Robert O. Dizon**  
Executive Director, MIRDC

### **MIRDC Governing Council**

Fortunato T. dela Peña  
Chairman

### **Members**

Alberto M. Albano  
Atty. Ernesto V. Perez  
Jimmy T. Chan  
Ma. Corazon H. Dichosa  
Robert O. Dizon  
Mario Luis J. Jacinto  
Antonio A. Gimenez  
Marimel D. Porciuncula  
Dr. Dionisio G. Alvindia  
Brenda R. Mendoza

### **Editorial Board**

Robert O. Dizon  
Agustin M. Fudolig  
Danilo N. Pilar

### **Managing Editor**

Danilo N. Pilar  
Lina B. Afable

### **Contributors**

Rosalinda M. Cruz  
Jim Patrick S.D. Erispe  
Zalda R. Gayahan  
Ma. Rodessa Grace A. Mercado  
Eldina B. Pinca  
Marlyn U. Ramones  
Vilma A. Sia  
Teresita C. Villosio

### **Layout/Graphics**

Ronald L. Agustin

### **Printing**

Ronald L. Agustin  
Reynaldo M. Loreto, Jr.

### **Circulation**

Josephine R. Esguerra

**Metals Industry Trends and Events** is a triply newsletter of the Metals Industry Research and Development Center (MIRDC), an agency of the Department of Science and Technology (DOST).

### **Editorial Office:**

MIRDC Compound, General Santos Ave.  
Bicutan, Taguig City, Philippines  
P.O.Box 2449 MCPO, Makati  
1299 M.M., Philippines

Tel. Nos.:  
(MIRDC Trunklines) (632) 837-0431 to 38  
(DOST Trunklines) (632) 837-2071 to 90  
loc. 2401

Fax No.: (632) 837-0430/837-0479

Website: <http://www.mirdc.dost.gov.ph>

Printed in-house





Week-long events include: (clockwise, from top left) technology exhibits, info-seminars, plant tour, and AGT demo ride.

The DOST-MIRDC supported the Mechatronics and Robotics Society of the Philippines (MRSP) in holding the Techno-Conference on Mechatronics and Robotics on 20 June 2017. Aside from the Techno-conference, the MRSP, in partnership with the Philippine Welding Society (PWS) spearheaded the 2nd Skills Olympics, whose awarding ceremonies were held on 22 June 2017. Through providing support in the conduct of such activities, the Center envisions proactive raising of awareness and aggressive promotion of the science and practice of welding and mechatronics and robotics among the youth and professionals.

21 June 2017 was marked with two very important events for the M&E Week celebration: the Technology Transfer Day in the morning, and the M&E Week Conference in the afternoon. The Tech Transfer Day enabled the Center to make the most effective use of the occasion to promote technologies ready for commercialization. Present during the

event were equipment fabricators, company owners, and top officials of industry associations who are heavily involved in decision-making when it comes to issues such as technology adoption and going into licensing agreements. Taking the lead in this activity were the Technology Diffusion Division, under its Chief, Dr. Danilo N. Pilar, together with engineers from the Prototyping Division, under Engr. Fred P. Liza, the Materials and Process Research Division, under Engr. Rodnel O. Tamayo, and the Analysis and Testing Division, under Dr. Rio S.

Pagtalunan. After the interesting three-hour technology pitching, industry players became more open to the idea of adopting technologies to improve their businesses. As a result of the activity, there was a total of 32 technologies requested as indicated in the seven (7) letters of intent received.

The M&E Week Conference in the afternoon paved the way for the renewal of the Center's partnership with various industry associations. The Center signed a Memorandum of Understanding (MOU) with the MRSP, the Aerospace Industries Association of the Philippines (AIAP), the Electronics Industries Association of the Philippines, Inc. (EIAPI), the Metalworking Industries Association of the Philippines (MIAP), the Motorcycle Development Program Participants Association (MDPPA), the Philippine Die and Mold Association, Inc. (PDMA), the Philippine Metalcasting Association, Inc. (PMAI), the Philippine Parts Maker Association (PPMA), and the Philippine Welding Society (PWS). This signifies the coming of projects relevant to the progress of the M&E industries. This year's Legacy Trophy was awarded to Mr. Eduardo N. Chua Co Kiong for his valuable contribution to the growth of the M&E industries. Senator Cynthia A. Villar graced the event as the Keynote Speaker. In her message, she said, 'There is no doubt that the DOST-MIRDC, with the vital



(L) Dr. Danilo N. Pilar welcomes participants to the Technology Transfer Day; and (R) interested companies inquire about the technologies being commercialized.



The 2<sup>nd</sup> Skills Olympics consisted of (from left): welding, mechatronics and robotics, and awarding ceremonies.



DOST-MIRDC renews its partnership with the industry through an MOU signing.

partnership, alliances, and linkages it has formed through the years, will continue to lead the metals and engineering industries into a future of greater relevance and even greater contribution to the country's growth and development.'

Part of the M&E Week Conference was also the launching and tour of the Gear Making and Assembly Facility and the new Industry Wing located in the newly renovated

Titanium Building of the DOST-MIRDC. These facilities aim to provide a more enabling environment to the M&E industries, and more significant assistance and collaboration with industry partners.

As what has been observed by the DOST-MIRDC for many years, the M&E Week is capped with the celebration of its Founding Anniversary/Employees' Day. 2017 witnessed the celebration of the

Center's 51st Founding Anniversary. All the Center's personnel gathered together to celebrate with musical presentations, fun, laughter, and bonding that keeps us all glued like family. Truly, the 2017 M&E Week was an event that will be cherished by the all of us who make up the Team MIRDC.

#### *MIRDC Features...from cover*

nutrition, disaster preparedness, health and agriculture through major activities such as technology exhibits and fora. The exhibits were mostly interactive in nature, and products and services from the Small Enterprise Technology Upgrading Program (SETUP) beneficiaries, from regional exhibitors, the private and government sectors, as well as from the academe were highlighted. The fora, on the other hand, provided the avenue to present to selected smaller audiences updates on research initiatives and to disseminate information on S&T-related concerns.

Always supportive of the annual NSTW celebration, the DOST-Metals Industry Research and Development Center (DOST-MIRDC) brought to the exhibits some of its latest technologies and facilities, and also featured two project outputs in the technology fora.

#### **Technology exhibition**

The DOST-MIRDC is part of the cluster under the DOST-Philippine



Figure 1. (L) The exhibits of the RDIs cluster, and Figure 2. (R) DBM Secretary Diokno, along with DOST officials, visits the exhibit booth of the DOST-MIRDC.

Council for Industry, Energy, and Emerging Technology Research and Development (DOST-PCIEERD), whose exhibits are sub-themed, "Transportation and Services: Moving People and Meeting Global Standards."

#### **A. Transportation exhibits**

For this year's NSTW, the DOST-MIRDC highlighted all projects under the DOST's Advanced Transportation: the Automated Guideway Transit (AGT) System; the Hybrid Electric

Road Train (HERT); and the Hybrid Electric Train (HET). The interactive video created for this purpose contained all pertinent information related to the Advanced Transportation projects, such as Background of the DOST and the DOST-MIRDC, background of the program, overview of the individual projects, technical specifications, and press releases/media exposures, among others. Figure 3 shows the home page of the interactive video.

One very interesting content of the interactive video is the presentation



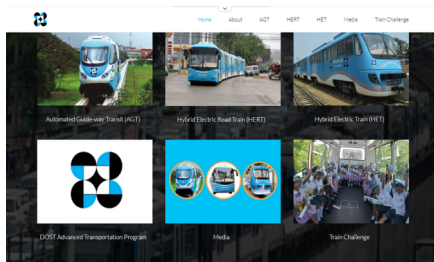


Figure 3. Home page of the interactive video of the Advanced Transportation Program.

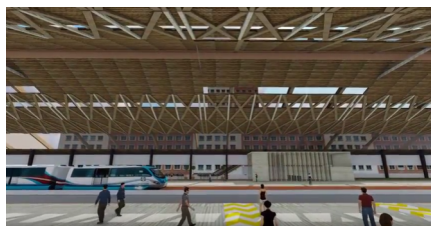


Figure 4. The Automated Guideway Transit



Figure 5. The Hybrid Electric Road Train



Figure 6. The Hybrid Electric Train

of the mass transportation systems using 3D models incorporated in an environment that suggests how the AGT's and the HET's passenger stations and platforms, and how the HERT's dedicated lane and passenger stations will appear once the trains are adopted and fully commercialized. It was a very impressive interactive video, and the viewers also found the proposed environment very nice, a far cry from our present local mass transportation systems. Figures 4-6 above are images from the said 3D models.

The Train Challenge proved to be the most exciting part of the exhibit. The Advanced Transportation booth had TV screens, laptops and tabs where guests can view and learn from the interactive videos. After viewing, the guests were invited to take the Train Challenge. A certificate and a token from the DOST-MIRDC awaited the challenge taker who is lucky enough to get a perfect score. Figure 7 is a



Figure 7. Some of the Train Challenge takers and winners.



Figure 8. Viewers of the VR booths featuring the ATF and the DMSC/Gear Making Facility of the DOST-MIRDC.

collection of photos of some of the Train Challenge takers and winners.

## B. Services

Another highlight of the RDIs cluster is the 'Services,' which was presented using the Virtual Reality (VR) technology. In this portion of the exhibit, screens and VR gadgets were provided to allow the guests to view and take a virtual tour of the various RDI facilities. The DOST-MIRDC featured the Die and Mold Solution Center/Gear Making and Assembly

Facility and the Auto Parts Testing Facility. The VR was a quick two-minute tour which highlighted the equipment and capabilities of the said facilities. The VR exhibits were viewed by many students and by industry players as well. Shown in Figure 8 are scenes from the VR booths of the DOST-MIRDC.

## C. Technology Fora

The MIRDC also conducted the following technology fora: 1) 12-Horsepower Single Cylinder Diesel Engine, and 2) Auto-Parts Facility in Support of the Components and Parts Manufacturing Sector. The resource persons were Engr. Francisco C.

Dime, Supervising Science Research Specialist from the MIRDC-Prototyping Division and Engr. Florante A. Catalan, Supervising Science Research Specialist from the MIRDC-Analysis & Testing Division, respectively. The fora were mostly participated in by academe and DOST regional representatives.

The MIRDC successfully participated in the 2017 National Science and Technology Week and took advantage of the opportunity to promote its technological capabilities.



Figure 9. Engr. Francisco C. Dime conducts the forum/seminar on 12-Horsepower Single Cylinder Diesel Engine (above picture) while Engr. Florante A. Catalan conducts the forum/seminar on Auto-Parts Facility (below picture).



### DOST-MIRDC Conducts AS9100 Rev. D Training on Risk Management

To successfully mitigate risk, an organization must carefully plan for avoiding, controlling, transferring or assuming the risk. For this purpose, the Department of Science and Technology–Metals Industry Research and Development Center (DOST-MIRDC) facilitated a two-day seminar on AS9100 Rev. D Training on Risk Management under the project “Supporting Philippine Companies in the Preparation and Implementation of an Aerospace Quality Management System (AQMS) aligned with AS9100 Requirements,” which is funded by the Board of Investments to support Philippine aerospace companies. Batch 1 was held from May 29 – 30, 2017 and batch 2 from May 31 to June 01, 2017 at the DOST-MIRDC Germanium Training Room, Bicutan, Taguig City. Mr. Ganesh Shashtri of NQA Philippines handled the conduct of the said seminar.

The course delved on understanding risks as applied to Aerospace Quality Management System (AQMS) processes and requirements, applying risk-based thinking, and managing operational risk in all phases of the product life cycle.

Several companies who are engaged in aerospace products and services participated in the training. Among them are representatives from Applied Machining Corporation; Aurochs Aerospace Precision Manufacturing Corporation; Calco Industries, Inc.; Daiwa Seiko Philippines Corporation; Firstec Metalics, Inc.; Jamco Philippines; JFS Precision Technology Corporation; Kapco Manufacturing, Inc.; Motta-Nai Philippines Technology Corporation; NSB Engineering Design & Fabrication; Onatech Incorporated; Philippine Aerospace Development Corporation;

Surface Technology International Philippines; Efficient Maschinentekniks, Inc.; B/E Aerospace Philippines; Famous Secret Precision Machining, Inc.; First Aerocote Surface Technology; MD Aerospace Fabrication Services, Inc./Rytek International; Moog Controls Corporation; and VJE Precision Toolings Corporation. Dr. Danilo N. Pilar, Chief-Technology Diffusion Division (TDD), and Mercedita G. Abutal, Chief-Planning Management Division (PMD) attended the said seminar.

The training is the fourth activity organized under the above cited project.

The last training offering is the Internal Auditors Course. The consultancy phase will provide needed assistance to beneficiary companies in the implementation of the latest AS9100 standard.



Participants of AS9100 Rev D Training on Risk Management Seminar work on their assigned exercise.



Mr. Ganesh Shashtri (standing in front) welcomes the participants.

### MIRDC Provides Office Spaces to Industry Associations

Tasked to assist the metals, engineering, and allied industries, the MIRDC, in addition to its services and joint activities with the sector, provides office spaces to industry associations. The beneficiaries are the following:

- Aerospace Industries Association of the Philippines (AIAP)
- Mechatronics and Robotics Society of the Philippines (MRSP)
- Metalworking Industries Association of the Philippines (MIAP)
- Philippine Die and Mold Association (PDMA)
- Philippine Society for Nondestructive Testing (PSNT)
- Philippine Welding Society (PWS)

During the M&E Conference held on June 21, 2017, one of the

highlights of the 2017 Metals and Engineering Week celebration, the MIRDC handed a symbolic key of the offices to the associations' presidents present, among them were: Mr. Dennis Y. Chan – AIAP; Mr. Augusto C. Soliman – MRSP; Ms. Inesitas L. Palermo – MIAP; Mr. Philip C. Ang – PDMA; Mr. James R. Porter Jr. – PSNT; and Mr. Reynaldo L. dela Cruz Jr. – PWS.





Left photo: Engr. Reynaldo L. dela Cruz, president of the Philippine Welding Society (PWS) happily receives the symbolic key of the PWS office from the MIRDC Executive Director, Engr. Robert O. Dizon, witnessed by Deputy Executive Directors Engr. Jonathan Q. Puerto and Dr. Agustin M. Fudolig. Right photo: MIRDC Top Management joins the presidents of industry associations in the photo ops..

The office spaces are located at the Titanium Building of the MIRDC, with floor area of approximately 22.4 m2. The associations are allowed use of the conference rooms and training rooms upon proper scheduling subject to standard fees and charges.

The Center continuously supports the industry associations by

providing relevant, timely and cost effective technical assistance through the provision of engineering expertise on research and development, conduct of technical training programs, among others.

This year's M&E Week is appropriately themed since the various industry associations have time and

again partnered with the Center and extended collaborative efforts in strengthening alliances, forging linkages, and transcending challenges aimed for progressive M&E industries.

## MIRDC Provides FREE Online Business Portal for the M&E Sector



[www.philmet.mirdc.dost.gov.ph](http://www.philmet.mirdc.dost.gov.ph)

The Metals Industry Research and Development Center has launched the Philippine Metals or Philmet website ([www.philmet.mirdc.dost.gov.ph](http://www.philmet.mirdc.dost.gov.ph)). This online business to business (B2B) portal was one of the outputs of the project "Support to the Development of the Foreign Market of the Metals and Engineering Industries Through Collaborative Efforts with the Metalworking Sector Asia Project – Philippines of the Center for the Promotion of Imports from Developing Countries (CBI) Ministry

of Foreign Affairs of the Kingdom of the Netherlands or the CBI project" funded by the Department of Science and Technology and implemented back in CY 2014. The site was further enhanced by the Center's MIS team.

The establishment of the online facility demonstrates DOST-MIRDC's strong support to the country's metalworking sector. Philmet intends to showcase the registered firms' capability and to facilitate B2B discussions between Philmet registered metalworking companies and potential buyers, whether local or foreign. The website can be utilized to explore business opportunities with prospective investors FREE of charge.

Registration is needed to start the ball rolling. Suppliers who shall register may post company information (i.e. products and services they provide) and discuss online with buyers either through 'Private Messages' or the 'Discussion Forum'. Registered buyers can post their requirements for metal products and

services as well as search for or chat with suppliers. Philmet has a responsive website design which makes it easily viewable even through mobile or tablet devices.

Majority of the country's enterprises are micro, small and medium enterprises (MSMEs). Thus, their marketing approaches and practices, particularly promotional activities, are very limited. Through this online service, the MIRDC aims to complement the promotional activities of the M&E industries, especially the MSMEs. It will serve as a marketplace for them and their buyers, and, in the long-term, enhance their marketing capabilities in the Asian and European markets.

The local metals, engineering, and allied industries are invited to register in the Philmet and maximize the benefits they can gain from the website.

# MIRDC, KOAMI and PDMA Set the Wheel in Motion for the MTSC Project

The Korea Association of Machinery Industry (KOAMI) engaged in a series of collaborative meetings with the Metals Industry Research and Development Center (MIRDC) in the months of May and July, 2017, to iron out plans for the developing Mold Technology Support Center (MTSC) project including the conduct of its feasibility study. One of the project's salient purposes is aimed at the development of a training center, with provision of state of the art equipment that will contribute significantly to the growth of the die and mold industry in the Philippines. The MTSC project was initially conceptualized in 2015 and has been set up to be funded by the Korean government through an Official Development Assistance (ODA).

A key portion of the series of meetings focused on the planned feasibility study, where more specific

targets were discussed. Based on the KOAMI's presentation, the necessary areas identified for the die and mold industry's development are CNC, to make high quality mold; tool, for fabrication with machine tools; injecting machine, for the mass production of plastic products; CAD/CAM, for exquisite mold design; conventional machine, for making and maintenance; and parts, for replacement of components. Among the topics discussed for the feasibility study were the economic, social, political, and ODA aspects to be considered and the appropriate budget that will be determined from the agreed cost-benefit analysis.

Also part of the agenda of the said visits are the design of the MTSC's master plan. This includes confirmation of the target site, lay-out, equipment list, training system, specific design of the MTSC, as well

as its operating organization. The Philippine Die and Mold Association (PDMA), as the pillar of the local tool and die making industry in the country, also engages in shaping the project's work plan. Mr. Jimmy Chan, Governing Council Member of the MIRDC and former PDMA President, enumerated three components that will contribute to the success of the MTSC project: communication, implementation, and sustainability. These components are seen as effective measures to enable the MIRDC, KOAMI, and PDMA collaboration to come up with viable and appropriate provisions for a more dependable foundation of the local die and mold industry.



Members of the Korean consortium focus on the discussion of the feasibility study for the MTSC Project.



## MIRDC Goes to Batangas for its 2017 Teambuilding

Teambuilding is still the most important HR investment that a manager can make. After a long journey from MIRDC to San Juan, Batangas, the program started before sunset. Dr. Agustin M. Fudolig welcomed all employees to this memorable event. The inspirational message of Executive Director Robert O. Dizon was focused on preparing for a bigger responsibility in 2018 where the proposed budget is higher than what has been expected. Also, he stressed on the importance of unity among the divisions of MIRDC. Dir. Dizon further reminded all personnel to cultivate the 'Go Team MIRDC' mindset.

Games were played during the program. The game masters, Dr. Jelly N. Ortiz and Ms. Grace A. Mercado, led the staff in playing the balloons and post-it games. Dr. Ortiz also introduced Camilo N. Gorres who is the newest member of the MPRD.

The most-awaited portion of the program is the contest entitled, "Your Face Sounds Familiar," where contestants had to look and sing like their chosen celebrity. Each division cheered for their own representatives: Ms. Lina B. Afable of the Technology Diffusion Division; Ms. Katherine T. Llanto of the Finance and Administrative Division; Mr. Vincent Boy E. Manabat of the Prototyping Division; Ms. Mary Joy C. Revilla of the Analysis and Testing Division; and Mr. Anthony Greg F. Alonzo of the Planning and Management Division. All contestants looked awesome in their make-up and costumes and performed their songs exceptionally well. Everybody applauded and supported the contestants. Ms. Revilla and Mr. Alonzo were both declared as winners and brought home a trophy and cash prize.

Afterwards, the management acknowledged the efforts of the

hilarious comedian-emcees: Mr. Karl Andrew S. Chavez, Mr. Arvin Yan V. Pacia, and Mr. James Asher B. Cabarloc with the certificates of recognition.

The efforts exerted by the Finance and Administrative Division contributed to making the teambuilding activity successful. The invigorating event, held in Alahbiga Resort at San Juan, Batangas from May 11 to May 12, 2017, added to the colorful and exciting memories of the MIRDC staff.

Teambuilding is not only an enjoyable experience, it also promotes trust and encourages cooperation within the MIRDC Family.



The special dance number of the top management with Ms. Valencia and Ms. Bedis.



Dr. Ortiz demonstrates the mechanics of the game as Ms. Mercado joins her.



Ms. Afable renders the song "Kahit Konting Pagtingin."



Ms. Revilla looks like the professional singer "Adele."



Mr. Alonzo and Ms. Revilla win the look-alike singing contest, and pose with the judges: Ms. Yolanda C. Sumagui, Ms. Phia S. Adordionicio and Dir. Robert O. Dizon.



The crowd was amused with the performances of the division representatives.

## New Products and Processes .....

### Turning, milling and drilling of extra large workpieces combined in one unit

Doosan Skoda Power has recently put into operation a new horizontal machining center for turbine rotors up to 140 t weight. The machining center, which combines turning, drilling, milling, grinding and measuring of extremely large parts in one unit was manufactured and supplied by Heinrich Georg Maschinenfabrik. The Georg ultraturn MC is designed to handle workpieces with diameter of up to 3,500 mm and lengths of up to 12,000 mm.

In the past, Doosan Skoda Power used to machine the turbine rotors in three steps- requiring three

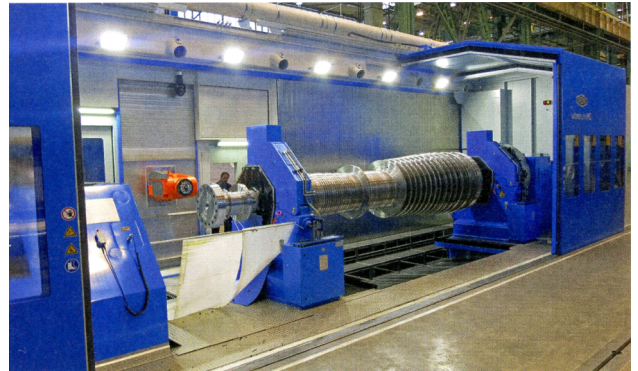
separate machines: first, all the rotors' bearing journals were turned, then the fir-tree blade slots were milled and, finally, the balancing holes and the coupling holes were drilled. In contrast, the new machine performs all these three process steps in one sequence, i.e. the work pieces do not have to be re-clamped or transferred in any way. The ultraturn MC series are designed to measure extra large workpieces with highest precision directly in the machine.

The overall machining time for regular rotors has decreased from about

1,000 down to 550 h. 30% less time in needed for turning and 50% for drilling and milling.

Contact: [www.georg.com](http://www.georg.com)

Source: *MPT International* 3/2017, p.54



Horizontal machining center

### Large motor-driven cable reels for Russian steelworks

Conductix-Wampfler, manufacturer of system for the transmission of energy and data to mobile consumers, has developed and supplied large motor-driven cable reels to Tulachermet Steel Company in Tula, Russia, for steel ladle as well as scrap and slag transport cars. The project involved six double-spiral motor driven cable reels for cables of over 1,000 m in length and a hose reel for argon supply.

The reels, with their unusually long winding lengths, have been installed in protected areas above the working area. The cables and hoses are suspended and guided by roller bearings every three meters. The reels are driven by AC motors, in combination with the MAG-Drive magnetic clutch developed by Conductix-Wampfler. The special reeling cable has been developed in

collaboration with the cable manufacturer. With six shielded energy strands for frequency-controlled drives, 20 control strands, and two shielded twisted pair control lines, this cable has been specifically adapted to the applications and local regulations.

The steel plant solution developed by Conductix-Wampfler makes use of rotary fiber transmitters (TFO), which are ideal for the transmission of large volumes of data over large distances. They can be equipped with single mode or

multi-mode fiber optic cables, single mode or multi-mode damping, and in variants for 40, 80, or 120 turns and 6, 12, 18, or 24 fibers. The solution package uses standardized cable reel components for easy spare parts management. Conductix-Wampfler had received the order from SMS group.

Contact: [www.conductix.de](http://www.conductix.de)

Source: *MPT International* 3/2017, p.55



Rotary fiber optic transmitter



Motorized cable reels



## New Products and Processes .....

### New ultrasonic testing unit for stainless steel bars

French stainless steel producer Ugitech, as subsidiary of the Schmolz +Bickenbach group, has invested in a new ultrasonic testing unit at its Ugine site. With the new system, Ugitech can now inspect almost 35,000t/year of steel bar for internal and surface defects in accordance with the highest technical standards, giving the company around 50% more capacity in quality

assurance. The non-destructive testing unit is used mainly for quality control and assurance of steel bar intended for use in the automotive industry. Following machining of the steel bar, the part's thickness in some cases is less than 0.5mm. Consistently flawless quality of the core and surface is essential for reliable component stability.

Contact: [www.ugitech.com](http://www.ugitech.com)

Source: MPT International 3/2017, p.56



Ultrasonic testing unit

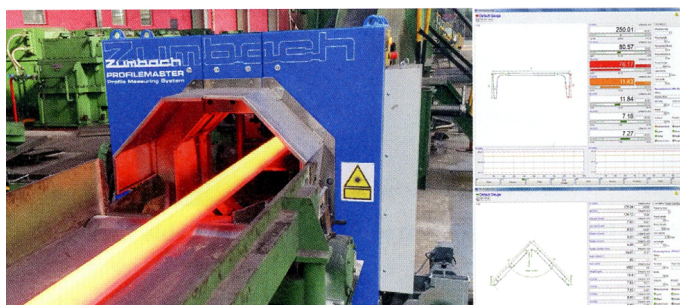
### Profile measuring system

ShanDong ShiHeng Special Steel China, operates Profilemaster® SPS series measuring systems from Zumbach Electronics. The latest unit is equipped with four CMOS camera/laser modules and mainly used for measuring L and Omega-type profiles. The system is important step to guarantee a high quality standard for the manufactured profiles. It has helped to solve previously existing measuring problems in the production line.

Zumbach Electronics offers comprehensive range of non-contact, inline measuring and control instruments for diameter, thickness, eccentricity and out-of-roundness measurements and for physical or electrical parameters like expansion, capacitance, dielectric strength, and more.

Contact: [www.zumbach.com](http://www.zumbach.com)

Source: MPT International 3/2017, p.56



Inline measuring gauge

### Thermal energy storage to reduce carbon footprint

Tata Steel is constantly aiming to improve its carbon footprint. In order to use its energy most environmentally friendly, at a facility in IJmuiden Tata, it intends to utilize the exhaust gas energy from production to cover some its energy demand. The plan also includes the creation of an energy storage facility based on technology from Energy Nest. The company's thermal energy storage (TES) solution allows to capture waste heat and make it available for later uses. The resulting economic benefit relates mainly to savings in natural gas consumption and consequently CO2 emission reduction.

The EnergyNest TES is easy to integrate and operate, since it contains no moving parts. The storage technology is based on a special concrete, Heatcrete®, which can store large amounts of thermal energy over a long period of time with little heat loss (1% per day).

Contact: [www.energy-nest.com](http://www.energy-nest.com)

Source: MPT International 3/2017, p.57



Graphic illustration of a thermal energy storage facility



### MIRDC Completes 2016 Philippine Welding Industry Study

The Metals Industry Research and Development Center has completed the Philippine Welding Industry Study which was started in 2015. The survey of the welding shops was extended until May 31, 2016.

The industry study illustrates the status of the welding industry touching on the background, general profile of the industry, and market and technical profile for the year 2012-2014. It also includes the business outlook of the industry players, the issues and concerns, the problems encountered, expectations, and the expansion plans for the next five years.

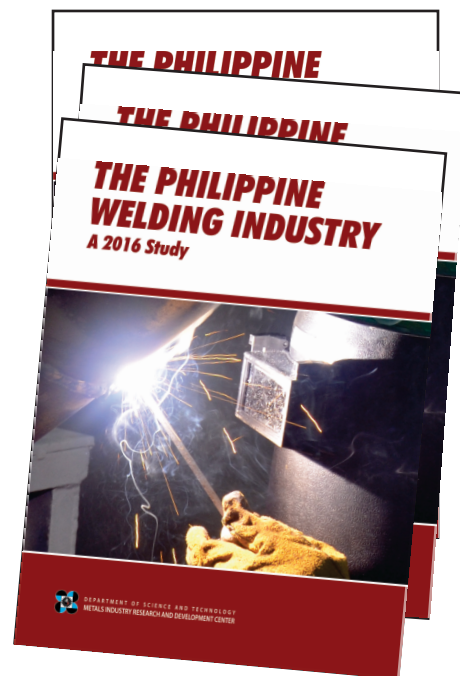
The result of the welding survey will be validated through a focus group discussion to ensure that the findings are accurate and concise.

The Philippine Welding Industry Study contains an aggregate of information gathered from 1,041 welding companies or shops located

nationwide, except for some cities and regions where the conduct of the survey is not advisable. There is a total of 1,200 identified welding companies in the country. The study will contribute to the relevant understanding of the industry's capability and needs. It is hoped to capture the attention of policy makers, organizations, and associations.

The previous industry study on welding, conducted in 1994, covered 1,060 shops or 76% of the 1,400 identified welding shops. The profiling study of the Philippine Metalworking Industry in 2013 also included the profile of the welding sector with 634 respondent-companies.

The series of industry studies on various metalworking industries is aimed to develop and implement a multi-sectoral agenda for the growth and expansion of the metals, engineering, and allied industries.



### MIRDC Employees Hold Clean and Green Activity

The DOST-Metals Industry Research and Development Center (DOST-MIRDC) employees, through the initiative of the MIRDC Employees Labor Association (SALEM), held a “Clean and Green” activity on May 26, 2017. The activity aims to promote beautification and cleanliness of the DOST-MIRDC compound, as well as volunteerism, and environmental awareness among employees.

Employees had fun while they cleaned up and planted trees in areas assigned to them. Food vendors added delight to the activity and were most welcomed by the tired and hungry employees.

The Clean and Green activity will be regularly done every last Friday of the month starting August 25, 2017.





## MIRDC Participates in PDMEX 2017

The Metals Industry Research and Development Center (MIRDC) recently participated in the 8th Philippine Die and Mould Machineries and Equipment Exhibition (PDMEX) held from 23-26 August 2017 at the World Trade Center (WTC), Pasay City. Participation in the exhibit is very important as the Center is given the opportunity to promote its matured technologies, and disseminate its latest information materials and publications.

Engr. Robert O. Dizon, MIRDC Executive Director, was the guest speaker during the opening ceremonies where he gave an update on the die and mould industry. He also inducted the new set of PDMA officers to assume office in January 2018.

The MIRDC technologies featured as the Centerpiece in the PDMEX were the Die and Mould Solution Center (DMSC), and the

Gear Making Facility. Viewers come from the industry, academe, and private individuals.

The PDMEX is a biennial event of the Philippine Die and Mold Association (PDMA) that started in 2003. The 8th PDMEX aimed to bring together various stakeholders in the industry to discuss the latest technology and practices that guide the development of die- and mold-making worldwide.

The 8th PDMEX is a bigger and better event designed to benefit the die and mold industry and other related industries. The event is participated in by companies from the USA, Netherlands, Germany, Italy, Switzerland, United Kingdom, Japan, Malaysia, Hongkong, Israel, Portugal, Singapore, Spain, Denmark, Korea, Taipei, Australia, Thailand, China, and local suppliers.



MIRDC's Die and Mold Solution Center (DMSC) and Gearmaking Facility are featured as centerpiece exhibit of the PDMEX.



PEZA Director General, BGen. Charito B. Plaza MNSA, PhD. gives her speech as guest speaker.



PEZA Director General, BGen. Charito B. Plaza MNSA, PhD. is joined by (to her left) PDMA President, Mr. Philip C. Ang, (to her right) DOST-MIRDC Executive Director Robert O. Dizon, and members of the PDMA Board of Directors during the Opening Ceremonies of the 2017 PDMEX.



## MIRDC Joins Metro Manila-wide Shake Drill

The Department of Science and Technology (DOST)-Metals Industry Research and Development Center (MIRDC) participated in the Metro Manila-wide Shake Drill on June 29, 2017 and July 14, 2017.

Organized by the Metro Manila Disaster Risk Reduction and Management Council (MMDRRMC) and managed by the Metropolitan Manila Development Authority (MMDA), the Office of Civil Defense (OCD), and other government agencies, the metro-wide earthquake drill aims to promote a culture of preparedness among Metro Manila residents for a possible 7.2 magnitude due to the predicted movement of the West Valley Fault.

Both drills were successfully done, with 230 estimated participants made up of DOST-MIRDC employees, tenants, trainees, and visitors. The Shake Drill participants proceeded to the designated evacuation area located near MIRDC's new access gate.

The Emergency Preparedness and Response Group (EPRG), headed by Engr. Florante A. Catalan, mimicked an earthquake scenario where injured personnel were rescued by an EPRG team and given first aide.

The earthquake drill was an eye opener for all MIRDC employees and made them aware of the things to do when the “Big One” comes.





## Metal Industry Cautious on Exports



The Philippine metal industry is cautious on prospects for exports this year in line with the projected reduction in imports from the United States.

The Philippine metal industry is cautious on prospects for exports this year in line with the projected reduction in imports from the United States.

Jimmy Chan, Philippine Exporters Confederation Inc. metals sector trustee, said the industry saw a growth for the first quarter which was generally driven by the peso devaluation against the US dollar and upward trend in metal prices. "However, export outlook is cautious

on the upward adjustment on US interest rates. Internal protective move towards US protectionism sentiment may cause scale down of US total imports," he said.

Chan said the Japanese automotive export market, meanwhile, seems to be sustaining the growth

momentum, driving most local metal firms to be upbeat despite prevailing cautiousness.

"Automotive electronics (are) following the uptrend. Solar energy also must be worthy of consideration," he said.

On the domestic front, Chan said that most investments made, mainly downstream fabrication-focused, were anticipating "brisk" business for this year.

He said construction on housing and government move toward manufacturing resurgence program continue to drive sustained domestic growth.

"Additional infrastructure activities may add new activities in the heavy construction," Chan said.

The Duterte administration is ushering in the "golden age" of infrastructure for the country through an aggressive infrastructure spending program which has a budget of P8 trillion until 2022.

Last year, Chan said new investments in the local metal industry were put on hold as volatile world prices took their toll among local firms. Aside from the global slump in metal prices, Chan also said the sector experienced problems concerning importation, leading some local metal firms to defer their investment projects.

*Source: The Philippine Star, April 28, 2017*

## Electronics Top Ph Exports; East Asia Market Expands

Electronic products remained to be the country's top exports as the sector grew by 11.6% from US\$2.359 billion in 2015 to US\$ 2.633 billion this year accounting for 53.7% of the total export revenues in August 2016, according to the recent report issued by the Philippine Statistics Authority (PSA).

Among the electronic products, semiconductors continued to have the biggest share with total of 39% that posted an increase of 11.2% from US\$1.719 billion in August 2015 to US\$1.912 billion in August 2016.

Department of Trade and Industry (DTI) noted that electronic products are one of the identified key exports of the Philippines under the Philippine Export Development Plan (PEDP) 2015-2017 along with

processed food and beverage, coconut oil, motor vehicle parts and computer and information services such as the information technology and business process management (IT-BPM).

"As part of our strategy in the PEDP, we will continue to provide comprehensive support services to our key and emerging exports sectors while we continue to strengthen our market presence and seek new trading partners," said DTI Export Marketing Bureau Director Senen M. Perlada.

Exports of other mineral products also grew with total sales of US\$120.16 million.

Meanwhile, exports to East Asia such as Hong Kong, China and Taiwan grew by 22.4%, 2.2%, and 19.72%, respectively. According to PSA, a large portion of the country's merchandise

went to countries in East Asia, accounting for 52.2% share of the total exports valued at US\$2.560 billion which reflected a 2.5% increase from US\$2.497 billion of August 2015.

Exports to some parts of Europe also grew such as France and Switzerland which reflected double-digit growth rates, 78.08% and 68.55%, respectively.

"Our traditional markets are there such as Japan and USA as our top export destination. But we are urging and encouraging exporters to maximize our FTAs (free trade agreements) with other countries," added Perlada.

DTI noted that at present, Philippines, as part of the Association of South East Asian Nation (ASEAN) has existing FTAs with other Asian

countries such as Japan, China, Korea, Australia and New Zealand, and India, that entrepreneurs, especially exporters, can maximize. Support services and assistance are all available with the Department's Export Marketing Bureau office (DTI-EMB). DTI also plans to increase its presence abroad by opening up new trade posts in strategic cities. Recently, it opened its first Philippine Trade and Investment Center in South America, in the city of Mexico and expecting to open another center in Toronto, Canada before the end of 2016. Plans

of expanding and hiring of more trade representatives abroad are also at hand in order to seek new markets, strengthen the country's economic presence abroad, and further assist Philippine micro, small, and medium enterprises (MSMEs).

PSA reported that for August 2016, total Philippine exports sales amounted to US\$4.904 billion from US\$ 5.128 billion in the same period last year. The overall decline was brought by seven major commodities out of the top ten export commodities for the month which include

machinery and transport equipment (-52.5%); metal components (-25.9%); chemicals (-16.2%); articles of apparel and clothing accessories (-11.3%); other manufactures (-9.3%); woodcrafts and furniture (-8.8%); and coconut oil (-6.9%).

*Source: The Department of Trade and Industry*

## Philippine Electronics Industry Poised for Continued Growth — SEIPI

The electronics industry remains strong amid “noises” surrounding the country, the Semiconductor and Electronics Industries in the Philippines Foundation Inc. (SEIPI) said.

“The good news is that investors have seen what happened last year and it's still business as usual, investments continue to come in, and whatever concerns there were have been communicated,” said SEIPI president Dan Lachica, referring to incidents that troubled investors which included “misrepresentations of President Duterte's pronouncements.”

“Now there are new scares like martial law in Mindanao and supposed terrorist attack in Resorts World which isn't. But after all is said and done, we're holding on to a five to seven percent growth projection for the year, notwithstanding what you hear. We are comfortable in hitting that,” he added. Lachica was referring to this year's target for electronics exports growth, which last year ended flat at \$28.6 billion from \$28.9 billion in 2015.

“Another indicator that things are alright, this PSECE (Philippine Semiconductor and Electronics Convention and Exhibition) has the most number of exhibitors in our history with over 250. For the very first time, China has also come to the PSECE and they have 13 companies that are exhibiting,” he said.

SEIPI opened yesterday the 14th edition of the PSECE, an annual electronics trade show and convention of the leading electronic firms in the country and its suppliers.

“So that is an indication that notwithstanding the martial law, notwithstanding the Resorts World attack, confidence is really strong, especially with the switch to digital economy. We need electronics components, we need semiconductors. And the Philippines is a good place to be as far as that is concerned,” he added.

Another indication of the rosy prospects for the Philippine electronics industry is the continued downpour of new investments in the sector.

Lachica said one multinational company is investing \$100 million on capital equipment to expand its capacity as well as innovation capabilities in the country.

Trade Secretary Ramon Lopez, meanwhile, said a German company is also pouring in \$43 million for capacity expansion in the country.

“That's only one. I'm sure there are many others. We are the hub because as you know, we're one of the major exporters of electronics,” Lopez said.

“The importance of the electronics industry cannot be understated. As one of the pillars of the country's industrial growth, the

industry is a top export performer with a 51.3 percent total share to total exports in 2016 worth \$28.8 billion. Likewise, electronics contributed 17.7 percent to the manufacturing gross value added (GVA), the second largest manufacturing sector in terms of GVA. More importantly the Philippine electronics industry has generated about 2.6 million direct and indirect employment,” he added.

Philippine Economic Zone Authority (PEZA) director general Charito Plaza said her agency is also optimistic that 2017 will be “a very big year for the industry.”

PEZA electronics and semiconductors investments for the first quarter posted a huge increase of 85 percent to P7.64 billion from P4.13 during the same period last year.

*Source: The Philippine Star, June 22, 2017*



### Aton Marketing: Goes All the Way to the Top



The Perezes in front of Aton Marketing, the family-owned business built in their 1-hectare property located in San Jose, Antique.

*It all started with backyard production. 'Isang torno, walong welding machine, ganun pa lang ang gamit noon,' Nimrod recalls. His clients are farmers and fishermen. With the equipment and manpower that he had, he was able produce parts and components that go into machineries. Production back then was, of course, by means of conventional methods which gave him very pressing challenges: low production output, and a lot of scraps.*

Aton Marketing, owned by Mr. Nimrod A. Perez, started in 1994 as an Antique-based enterprise in the retailing industry. Prior to putting up his own business, Nimrod was employed in a private company that imports single piston engines used to power hand tractors. *'Doon nagsimula ang interest ko sa mga farm implements,'* he shares. He established good rapport with his Tacloban dealers, and some asked him to find them threshers. This sideline enabled him to earn a little profit, and inspired the businessman in him even more. The demand for farm implements in Tacloban, Palawan, and Mindanao grew higher and came to a point that his contacts cannot accommodate the volume of orders anymore. When he resigned from work, he decided then that he will venture into farm implement production. Hence, Aton Marketing shifted from just retailing to manufacturing in 2000.

Nimrod had a chance to know the Department of Science and Technology-Metals Industry Research and Development Center (DOST-MIRDC) through the Center's Extension Officer, Engr. Felipe 'Boy' Pachoco. Both were on their way to attend the conference of the Metalworking Industries Association of the Philippines (MIAP) in 2010. *'Sa airport kami nagkakilala. Doon ko din nalaman na taga-Antique pala sya,'*

recounts Nimrod. 'By the time na nagkakilala kami ni Sir Boy, ang mga competitors namin dumami na,' he adds. He shares that Engr. Pachoco visited his shop and saw for himself exactly what intervention the DOST and the DOST-MIRDC can provide. Nimrod further explains how the DOST-MIRDC gave significant contribution to Aton Marketing. 'Sir Boy really helped me sa mga "surgical solutions." Kung ano yung sakit na nakita ni Sir Boy, may lunas sya na talagang para doon.'

Through Engr. Pachoco, Nimrod was able to see the situation clearly. Too many competitors, not a good idea to increase retailing price, and not a good idea to increase profit. The most effective way to face this challenge is to increase production. Nimrod tells that it was Engr. Pachoco who gave this suggestion. *'Sabi ni Sir Boy, dapat doon tayo mag-invest sa gamit. So, na-introduce nya ang Small Enterprise Technology Upgrading Program (SETUP) ng DOST.'* The company acquired a punching machine via SETUP assistance. *'Kasi dati mano-mano lang ang drilling. Ngayon nagpa-punching na kami. Pagkatapos ng SETUP, inintroduce din nya ang die and mold technology ng DOST-MIRDC. Dinala nya ako sa MIRDC, mga tatlong beses nya ako dinala doon.'*

When they went to the DOST-MIRDC, Engr. Fred P. Liza was there

to accommodate them. Being the Chief of the Prototyping Division, Engr. Liza discussed topics including the gearbox, die and mold, and waste materials. *'Ang waste materials natin,'* shares Nimrod, *'ay mga GI sheets. So ipapakilo yan. Sa ngayon, say P5 per kilo. Pinag-usapan namin doon sa meeting na pag ginawa namin yan flat washer, instead na ibenta namin yan ng P5 per kilo, yung flat washer lababas na P80 per kilo na.'* What they learned from this technology is that so much income can still be generated out of scrap.

With regard to gear box production, Nimrod reveals that they are able to reach 30-40 units a day, a huge improvement from their usual 8-12 units produced per week before the DOST-MIRDC's intervention. 'Malaki talaga,' says Nimrod of the difference in production. *'Hindi kami nagdagdag ng presyo dahil doon.'* Nimrod explains that their current price remains the same as their price ever since. Aside from the fact that this is the advice given to them by Engr. Pachoco, Nimrod also shares another reason why they did not increase their selling price. *'Ang kino-consider namin na competitors yung mga imported goods from China, which are very cheap. So, ang laban namin hindi kami pwede mag-akyat ng presyo sa retailing. Pag umakyat ang presyo namin, makikita ng mga importers na pwede na sila mag-import kasi ito na*

## Success Story .....



yung market e, ito na yung market price. So pwede na yung imported. Pag you keep your prices low, ayaw ng competitors yun kasi discouraging lang ang margin na meron sila.'

Although there are many competitors, Aton Marketing stays ahead 'dahil na-feel ko na kung ano ang pakinabang ng dies and mold,' remarks Nimrod. Their dies are still limited, and according to him, 'yung iba nga ginagawa lang kung ano ang makakaya namin locally. Pero malaki pa ang target namin sana gawin para maging more competitive pa kami. Kasi ang mga imported goods, nagbabantay lang yan. May window sila na kaya na nila mag-import, na kaya na nila tapatan ang presyo natin, nandyan na sila.'

Not earning big profit from one product makes good business sense. 'Kahit maliit lang ang benta, basta lumawak ng lumawak ang market share. If you are making less lang per piece, pero malaki ang market share, ma-o-offset pa din nun ang desired profit mo na pambili mo ng susunod na mga equipment mo,' elaborates Nimrod.

'Ang target na level of profit margin mo, imaintain mo lang sa ganun, i-increase mo lang ang volume. Hindi naman kami yumayaman na mayamang-mayaman. Mayroong kita. Meron. May naiwan, kasi simula't sapul, ang mindset namin ay customers namin ay farmers at fishermen. Hindi kami sa industrial.

Hindi namin na-feel yung luxury of making big profit.'

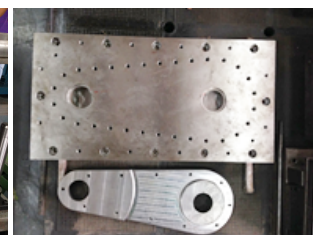
When Aton Marketing started in the business, only 5-10% of their products are sold in Antique. In the year 2000, their target was only to get half of the market in Antique. But luck decided to smile on them as they continued to cater to other places too. 'Through the years, hindi lang Antique ang kine-cater mo, pati nearby provinces na. After mga five years, hindi lang Region VI ang kine-cater mo, pati nearby regions na. At sa biyaya ng Panginoon, sa ngayon whole Visayas na tayon, then part of Mindanao, and a little of Luzon.

Aton Marketing, which started as a backyard production in 2000 with a capitalization of P100,000, a used lathe machine, a welding machine, and a complement of two workers, has gone

very far in its business journey. Along with the growth of the company is the increase in its product lines. Presently, it is a well-known supplier of locally fabricated farm machinery such as rice thresher, turtle tiller, hand tractor, rice blower, shredder machine, rice mill, and trailer. Aton Marketing also produces prime mover engines for these machineries. In 2012, the company grew to 50 employees with assets totaling to P3,185,996.00.

Constantly providing technology interventions, the DOST-MIRDC deployed to the Aton Marketing the Turtle Tiller Gear Box and Washer Dies in 2016. How did these equipment contribute to the further success of the company? Below is a comparison of figures before and after the project:

	Before the project (2015)	After the project (2017)
1. Annual combined output	3,000 units	10,000 units
2. Productivity Gear Box	12 man-hours, 1 set	8 man-hours, 200 sets
3. Volume of scrap metal	40 tons annually	20 tons, recycled as washers
4. Scrap/recycled value	20 tons at P5/kg	20 tons at P80/kg



Molds for Aton Marketing made at the DOST-MIRDC's Die and Mold Solution Center.



## Success Story .....

Part of Aton's growth as a business is the continual capability building it provides its employees. His company recently bought 30 units of MIG welding, and allowed the staff to undergo training. It was conducted by DOST-MIRDC's very own, Engr. Reynaldo L. dela Cruz, Chief of the Industrial Training Section. Aton Marketing is scheduled to acquire 20 additional units of MIG welding machines before the end of the year.

Aton Marketing is now the largest maker of farm implements. 'Largest in terms of production output, not in terms of profit,' states Engr. Pachoco. *'Kaya nagulat din si Secretary na sa pinakiliblib na lugar ng Antique, pwede pala magkaron ng industry na ganun,'* he proudly shares.

Nimrod is involved more in purchasing and in introducing innovations that make the job easier and more efficient, because in production, according to him, 'everything is already in place.' He further adds that they are lucky they do not need to focus on marketing because clients come to them. At the moment, the Department of Agriculture (DA) is one of their top clients, although they do not have direct tie-ups. *'Ang*



Engr. Reynaldo L. dela Cruz conducts MIG welding training for the staff of Aton Marketing.

*ginagawa ng mga nagbibid, dahil nakikita naman nila na we have ample stocks ready at makakadeliver kami within the commitment period, yung nananalo sa bidding, doon na umoorder sa amin,'* he explains.

Engr. Pachoco comments, *'Dati maraming opportunity losses sya, napakashort ng lead time na binibigay sa kanya. Kunyari sabihin two months. E loaded sya. Bago pa pumunta yun, e loaded na yung makina nya.'* This is usually the case and then another client comes, for instance ordering 50 units in two months. *'May mga times na madami. Kung sino*

*nanalo sa bidding, pupunta sa kanya kasi alam na nga na sya ang cheapest in town,'* tells Engr. Pachoco.

Aton Marketing occupies a 1-hectare property, 70% of which is utilized for production. Layout is currently being improved. The company employs a total of 100 employees now. True to what Nimrod said, everything in production is in place already. In fact, the Department of Labor and Employment (DOLE) and the Department of Trade and Industry (DTI) are scheduled to come for a visit. *'Gusto nila i-model yung shop dahil madaming tao,'* shares Mrs. Perez, wife of Nimrod. She is also hands-on in the business.

She knows all employees by name. She knows each employee's production capacity. If they meet target production for that week, employees are given cash incentives. *'Pag wala, parang matamlay din,'* she said smiling. They operate from 8 am to 5 pm, and give overtime pay for staff who will work beyond 5 pm. They cook snacks for the employees. These are their own ways of sharing their blessings to the staff. Aside from these, Nimrod adds that their employees are SSS members, all are receiving minimum and above



Aton Marketing welcomes DOST Secretary Fortunato T. dela Pena and other DOST personalities on their project site visit on January 19, 2017.



# Success Story .....

minimum wages, and have been receiving the 13th month pay since its implementation five years ago. *'Dinadala na namin sila sa Boracay. Although hindi lahat, batch by batch lang.'*

Nimrod also shares it is inevitable that some of his former employees have become his competitors. *'Marami yan. Hindi lang kumpetensya, yung iba pina-pirate pa ang tao mo. Meron mas mayaman na kesa sa akin. Meron naman pa-ilan-*

*ilan dyan na you feel fulfilled. You learn na lang to accept that there are people na ganun pala. Hindi mo talaga masabi na ma-mold ang tao sa gusto mo. Pero sige lang, tuloy lang. Basta nandyan ang MIRDC.'*

The couple is blessed with three children, with the eldest already involved in the business. With a continuously growing market share, and strong technology support from the DOST-MIRDC, Nimrod does not allow all his achievement go to his

head, but rather he keeps his feet firmly on the ground. The most important lesson he learned from all his experiences is that 'you learn to bend with prayer. You learn to bend your knees. The rest, add-on na lang. Sa Panginoon talaga, kahit anong gawin natin kung hindi nya yan kalooban, wala din. We're just swimming upstream. Pero kung biyaya nya yun, nasa plano nya din yun, walang kahirap-hirap.'



Some of the staff of Aton Marketing in one of their company-sponsored trips to Boracay.

## Editorial Office:

MIRDC Compound  
Gen. Santos Avenue  
Bicutan, Taguig City  
Philippines  
P.O. Box 2449 MCPO  
Makati 1299, M.M.  
Philippines

