

Mapúa in a time of knowledge explosion and globalization

To respond to the call of the times has always been one of the commitments of Mapúa Institute of Technology. For more than nine decades, the Institute has proven time and again that it is at the forefront of engineering education, continuously leading its counterparts toward an advanced and accomplished future.



In 1925, a young architect by the name of Tomas Mapúa opened a night school in a rented portion of a building in Carriedo Street, Quiapo, Manila. The night school, which initially had 75 students and 15 teachers, was a response to a time when the Philippines was busy and engrossed in nation building but lacked the engineers and architects for it.

Ninety-two years later, standing as a premier engineering and technological school in the country, Mapúa continues to respond – this time to the ever-changing landscape of the world. Mapúa's run for more than nine decades is testament to how the Institute is continuously adapting to the times and will continue to do so in the years to come.

Looking ahead, Mapúa celebrates its 92nd year with the theme "Future Mapúa: Paving the way towards a digital, research-driven, outcomes-based, international domain (DROID)" from January 23 to 28. The theme fully encapsulates the Institute's commitment to develop and bolster Mapúa's world-class quality of education.

"The theme provides a bird's eye view on what Mapúa would be in the next ten years after it has achieved its development plans," said Engr. Alejandro H. Ballado, Jr., dean of the School of Electrical, Electronics, and Computer Engineering (EECE). The School of EECE is this year's organizing committee for the Foundation Week. "In ten years, Mapúa shall be the leading university in terms of employing digital education, outcomes-based education, research-development-innovation, and expansive global footprint."

Aside from its rocketing repute in digital education, research, and outcomes-based education, Mapúa stays true to its mission to transmit, generate, and apply knowledge in order to provide solutions to problems worldwide.

DROID Conference

In line with the theme, the School of EECE opens the first Mapúa DROID Conference, which will highlight Mapúa's objectives for the coming years. Selected faculty members from the different schools and departments will also share their best practices in terms of digitalization, research, outcomes-based education, and internationalization. The conference will be held on the fourth day of the foundation week, January 26.

"DROID is the driving force that will lead us to Mapúa's vision of becoming one of the best universities in the world," said Engr. Ballado.

DROID, a term coined by Mapúa president Dr. Reynaldo B. Veja, summarizes the Institute's response to globalization and to the explosion of knowledge.

"DROID stands for what Mapúa intends to fully become in the future," Dr. Veja said. "It encapsulates our strategic objective, which emanate from our vision to join the ranks

of the world's best universities and our mission to transmit, generate, and apply knowledge," said Dr. Veja.

The same day also marks The Cardinal Excellence Awards (TCEA), which is an annual recognition of the exemplary performances and achievements of Mapúans; the ETAN Quiz Show organized by the Honor Society of Mapúa; and a thanksgiving concert of the Mapúa Cardinal Singers.

Weeklong activities

According to Engr. Ballado, the Mapúa community should expect "a combination of exciting activities comprising technical events, conferences, seminars, and numerous academic and non-academic competitions."

Just like last year, the weeklong celebration kicked off with the annual Mapúa Fun Run organized by the Central

Student Council. The first day of the week will be marked with the Parade of Excellence wherein a mascot will represent each school or department. On the same day, a wreath laying ceremony will be held to honor the Institute's founder, Don Tomas Mapúa. The opening ceremonies for the Don Tomas Cup, the annual basketball and volleyball competitions of different departments, will be held as well.

The second day of the celebration will include the Hernando Limsin Lecture Series, spearheaded by the Foundation of Outstanding Mapúans Inc. (FOMI). The lecture series will highlight current issues with significant impact on society. Engr. Freddie P. Yumang, Vice President of Refinery at Petron Corporation, and Engr. Rod Silvestre, President and Founder of Halchem Industrial Sales, Inc., will be the main speakers of the lecture who will discuss innovations in engineering and business.

The third day is a day of competitions, as the annual Math Wizard will be held along with a Literary Quiz Show, which will prompt students to read and develop an understanding of new cultures. A red carpet ceremony for this year's Mr. and Ms. Cardinals will happen at Mapúa Makati, showcasing candidates of the different departments through beauty and excellence.

Mapúans will witness the beauty, grace, and wit of Mapúans at the Mr. and Ms. Cardinals pageant night on January 27, the fifth day of the weeklong celebration. The Physics Society of Mapúa meanwhile will test the skills of students in demonstrating the laws of physics through a series of activities.

On the last day, the Institute will be having an open campus event for prospective students to learn more about the many facets of the Institute and to have a first-hand experience of the student life as a Mapúan. The last event of the Foundation Week is the Alumni Night organized by the National Association of Mapúa Alumni Inc. (NAMA).

Various activities prepared by Mapúa's different student organizations are also lined up for the whole week. ■

"Knowledge is exploding, and the world is shrinking."



(L-R) Dr. Reynaldo B. Veja, President and Chief Executive Officer, and Engr. Alejandro H. Ballado, Jr., Dean of the School of Electrical, Electronics, and Computer Engineering, and Chair of the 92nd Foundation Week organizing committee

Mapúa, MCL, MHSS raise the bar in senior high school education

Since the commencement of the implementation of the K-12 curriculum throughout the Philippines, Mapúa Institute of Technology and its subsidiaries, Malayan Colleges Laguna and Malayan High School of Science, have set a standard of quality education and innovative learning. The Senior High Schools of the three schools have been blazing a trail in Philippine education, marked by state-of-the-art innovations in technology as well as holistic curricula.

In their first year of implementing their respective senior high school programs, all three schools noted positive trends in the development of the pioneering batch of students. According to Dr. Dionisia Lanuza, Principal of Mapúa SHS, this is due to the schools' commitment to supplementing traditional classroom learning with cutting-edge technology, making the learning process even more enriching and engaging to students.

"In general, the quality of learning provided by the Institute is world-class, and the avenues for extracurricular activities are broad – a good balance between studies and play," Dr. Lanuza said.

For instance, Mapúa, MCL, and MHSS senior high schools all employ Blackboard Learn, an innovative learning management system to aid students in integrative learning.

"With our Blackboard Learn, we are implementing blended learning for our students," shared John Vincent Salayo, Principal of MCL.

The three schools also fully implement the Outcomes-Based Education (OBE) approach wherein "students deliver performances or products that are concrete evidences of their learning and understanding – not just pen-and-paper assessments," Salayo said.

Mapúa, MHSS, and MCL's senior high school curricula are made more unique by their emphasis on science, technology, engineering, and mathematics (STEM). All three schools strive to instill in their students a passion for STEM and consequently, practical skills where knowledge of STEM is applied in solving real world problems. Students who are pursuing STEM in tertiary education also have an edge over their peers, thanks to this early start.

"In MHSS, we have integrated Microsoft Office Productivity Tools and plan to integrate mobile app programming and database management as subjects as early as Grade 11. By Grade 12, our students are adequately prepared to continue to expand their STEM knowledge through subjects not available in many other senior high schools in the Philippines, such as Internet of Things," said Jocelyn Antiporda, Principal of MHSS.

Aside from STEM, Mapúa is offering the other three strands of the Academic Track: Accountancy and Business Management Strand (ABM); Humanities and Social Sciences Strand (HUMSS); and General Academic Strand (GAS) while MCL is offering ABM and HUMSS and technical-vocational-livelihood tracks.

With almost an entire academic year's worth of senior high school implementation behind them, Mapúa, MHSS, and MCL are ready to further push the boundaries and improve education for students. Mapúa and MHSS are both anticipating increased and improved linkages with national and international STEM institutions in the near future. Meanwhile, MCL is turning its focus towards more enhanced learning spaces for its students.

True to their goal of relentlessly raising the bar of education, the schools continuously plan to boost their thrusts for better education and to redefine the limits of innovation. As Salayo noted, "Though we are confident in our curriculum and teaching methodologies and practices, we are unrelenting in seeking to further improve." ■

FUTURE MAPÚA: a Digital, Research-driven, Outcomes-based, International Domain

At the turn of the century, Mapúa Institute of Technology aspired to be a global center of excellence and envisioned itself to become one of the best universities in the world.

With that, Mapúa began to position itself as a leader in producing graduates who offer world-class professional services in the global economy of today.

In 2015, the Institute's President Dr. Reynaldo B. Veja coined DROID, which refers to Mapúa becoming a digital, research-driven, outcomes-based, international domain. This, according to him, is Mapúa's response to a time of globalization and the explosion of knowledge.

"Isolation is no longer an option in a globalized world. The vigorous flow of students, faculty, and knowledge is the norm," Dr. Veja said.

Digital

In pursuing the vision of becoming among the best universities, Mapúa is gearing towards digital education.

"In the sphere of digital education, we seek to be always up-to-date in the latest technologies and pedagogies and to apply these in a big way," said Dr. Veja.

After successfully holding simultaneous online classes in November through Blackboard Collaborate, an online collaborative tool, Mapúa is now on its way to deliver full online courses and implement blended learning. Blended learning is the combination of the face-to-face delivery of content with other techniques using technology like an online learning management system.

"Digital education is a tool that has the power of reaching many people over the Internet," said Dr. Veja. "If we could utilize this technology, we will eventually be able to reach our alumni all over the world whom we know want advance or graduate education."

Moreover, with digital education, there will be no more boundaries in the dissemination of knowledge across the globe.

Research-driven

"With knowledge as the currency of modern-day economies, research has acquired a premium in the academic world. With the democratization of research via the Internet, small laboratories in schools all over the globe can join the fray," said Dr. Veja.

One of the main research projects that Mapúa is undertaking is on the widely emerging technology of Internet of Things (IoT). IoT is a network of smart things communicating with one another for the purpose of performing certain tasks.

According to Engr. Alejandro H. Ballado, Jr., dean of the School of Electrical, Electronics, and Computer Engineering (EECE), IoT is currently one of the leading technologies worldwide and is

"Isolation is no longer an option in a globalized world. The vigorous flow of students, faculty, and knowledge is the norm."

expected to progressively develop in the coming years.

"There are a lot of areas in research wherein Mapúa can integrate the concept of IoT," Engr. Ballado said. "It is a world of opportunities because we can re-engineer our world through innovation of this technology."

Currently, Mapúa has DOST-funded researches implementing concepts of remote structural health monitoring, sensors, networking, and IoT. One of these is an automated real-time monitoring system (ARMS) for three Philippine dams aiming to develop cost-effective hydrologic sensors and an advanced web-based system for automatic dam monitoring operation; another is a wireless sensor network system for structural integrity monitoring of bridges (SMART BRIDGE) for preventive maintenance and operation of bridges in the country through sensors and remote monitoring. Dr. Francis Aldrine A. Uy, Dean of the School of Civil, Environmental, and Geological Engineering (CEGE) leads these projects in collaboration with the School of EECE. These projects are in addition to the DOST-grant-in-aid projects, the Phil-LiDAR 1 and 2 for the area of Cavite, Batangas, Rizal, and Quezon (CABARZON), which the School of CECE and EECE have been handling since 2014, respectively.

"These research projects directly respond to DROID as they will generate new graduate students, international publications, intellectual properties (IP), and industry linkages," said Dr. Uy.

Membrane research

Another research area that Mapúa is working on is membrane research.

At present, most studies on this particular area are focused on testing material additives to produce membranes of specific properties.

"We want to make membranes with the least possible resistance to transport, during separation process applications, without compromising their mechanical properties," said Dr. Alvin R. Caparanga, Chemical Engineering Program Chair. He added that ongoing researches seek biological and biomedical applications such as a research on drug and gene delivery system by Dr. Lemuel L. Tayo, Biological Engineering Program Chair, and a research on self-cleaning membranes by Jacqueline De Vera, a Biological Engineering graduate.

"The field of membrane technology is a very crucial field because this seeks to offer solutions to the growing problems in water pollution, removal of unwanted substances in various systems, and in the improvement of the efficacy of drugs," Dr. Tayo said.

Dr. Delia B. Senoro, International Linkages for Research and Development (ILRAD) head and the Environmental Engineering Graduate Program Chair, said there is a high demand for membrane technology in the Philippines. Creating and developing new membranes as well as modifying and enhancing the surface of existing membranes are tracks for membrane research, she added.



(L-R) Dr. Alvin Caparanga, Chemical Engineering Program Chair, Dr. Delia B. Senoro, International Linkages for Research and Development (ILRAD) head and the Environmental Engineering graduate program chair, and Dr. Lemuel L. Tayo, Biological Engineering Program Chair

"Within these tracks, new products, IP rights, and patents are most likely to be produced. And with the entrepreneurial ecosystem in Mapúa that would be developed through the BEEHIVE project, entrepreneurs are expected outcomes," Dr. Senoro said.

BEEHIVE or "Building Entrepreneurial Ecosystems to Enhance Higher Education Value - Added for Better Graduate Employability" is a European Union-funded project which is a collaboration of 11 institutions from Bulgaria, Italy, Ireland, Iceland, Greece, Philippines, and Indonesia seeking to build university-based entrepreneurial ecosystems in Asia, particularly in the Philippines and Indonesia.

Intellectual property

According to Dr. Jonathan W.L. Salvacion, Dean of the School of Graduate Studies, intellectual property is the organizing principle of research in Mapúa.

"The idea here is not to duplicate what has been done before. If we want to generate intellectual property, our works should be unique and innovative," Dr. Salvacion said. Intellectual Property is included in the graduate curricula of Mapúa wherein students are taught to write better backgrounds for their work, specifically looking for previous works related to their research.



Dr. Jonathan W.L. Salvacion, Director of Directed Research for Innovation and Value Enhancement

Dr. Salvacion further said that Mapúa is encouraging students to do research to address certain needs, especially in engineering research, wherein researches must be needs-based, outcomes-based, and design-oriented, as tangible problem-solving projects are the primary strength of Mapúa, being an engineering institution.

"Mapúa should harness the explosion of knowledge in the globe to solve problems," Dr. Salvacion said.

Outcomes-based education system

Solving problems of industries and communities is part of Mapúa's mission. For this reason, in 2006, the Institute adopted and formally implemented the outcomes-based education (OBE) system, a learner-centered approach requiring students to validate their knowledge through measurable outcomes. Mapúa is the first Philippine school to adopt the OBE in a big way, and the strong implementation has resulted in a significant progress in student growth, board exam performance, and international accreditations.

"We like to think that we have blazed a trail towards outcomes-based accreditation and OBE in this country," said Dr. Veja.

With OBE, Mapúa's programs secured accreditation both by the Engineering Accreditation Commission and Computing Accreditation Commission of ABET for 11 engineering and two computing programs. In addition, four more programs of the Institute were also granted PTC accreditation by the PTC- ACBET. Mapúa now has eight programs accredited under PTC.

"We hope to continually improve our statement of student outcomes through research and consultation with industry and other stakeholders. We also want to master authentic assessment to be able to scientifically and progressively elevate the level of attainment of the student outcomes," Dr. Veja said.

These international accreditations contributed to the internationalization efforts of the Institute.

Internationalization

To be part of the roster of the best universities in the world, Mapúa has been making strides in implementing various international programs and forging linkages across the globe.

"In order to put Mapúa in the map, we need to foster more international linkages with other universities," shared Dr. Bonifacio T. Doma, Jr., Executive Vice President for Academic Affairs.

As of today, Mapúa has more than 80 industry and academe partners, including research institutions and universities.

Mapúa has always been committed to honing globally competitive students. In fulfilling this, the Institute developed various international programs—student exchange programs, summer camps abroad, plant visits, and international internships.

"The international programs integrated in our purpose, function, and delivery of quality education adds an intercultural and global dimension to the Institute," said Engr. Rosette Eira Camus, Dean of Admissions and International Programs. To date, Mapúa has sent students to Japan, Spain, Malaysia, Thailand, United States of America, Iran, Singapore, South Korea, Taiwan, Vietnam, and China for on-the-job trainings, plant visits, student exchange programs, and summer and leadership camps.

Furthermore, the ILRAD office has sent 46 research students to Taiwan and a total of 19 research faculty members to South Korea, Taiwan, and Thailand. Also, ILRAD facilitated the hosting of four foreign research students from Taiwan and Sweden and 52 foreign visiting trainers and professors from Australia, Denmark, Japan, Singapore, Sweden, and Taiwan.



Dr. Bonifacio T. Doma, Jr., Executive Vice President for Academic Affairs

Another effort being done to achieve internationalization is to increase the number of research papers in Scopus, the largest abstract and citation database for peer-reviewed literature, and to increase the traffic in inbound and outbound faculty and students. Dr. Doma further said that the Institute is looking at increasing the number of visiting professors from different countries.

Domain

In the future, Mapúa is gearing towards offering more programs that will marry engineering and non-engineering disciplines.

"I would want to see a program that melds the cognitive sciences with computer science in the field of artificial intelligence (AI). It has been a slow process but AI is coming of age," Dr. Veja said.

Also, the Institute is looking at the expansion of its graduate programs, especially its Biological Engineering program, which Mapúa pioneered in the Philippines.

"All elements of DROID, as an encapsulation of our strategic objectives, are based on the premise that knowledge is exploding and the world is shrinking," Dr. Veja further said. "What we have upon us is a global, knowledge-based economy, in which the main driving force is technological development." ■

Research-driven

- Jacqueline S. De Vera, a Biological Engineering graduate, won the top prize during the Magsaysay Future Engineers/Technologists Award of the National Academy of Science and Technology with a research on self-cleaning membranes. Two other Mapúans were among the five finalists in the said competition.
- Four Mapúan researchers were among the top 200 scientists in the Philippines according to Cybermetrics Lab under Consejo Superior Investigaciones Científicas of Spain.
- The Mapúa-Phil LiDAR 2 team turned over resource maps to different government agencies and municipalities of CABARZON.
- Mapúa has significantly increased the number of its Scopus-abstracted papers for 2016, making it among the top 10 schools in this regard.
- Mapúa has undertaken various projects funded by the national government such as the Automated Real-Time Monitoring System (ARMS) for Ambuklao, Binga and San Roque Dams, Development of Wireless Sensory Network System for Structural Health Monitoring of Bridges.

Outcomes-based

- Mapúa's international accreditations such as the ABET, PTC-ACBET, PICAB manifest stability and advancement of the OBE implementation in the Institute.

International

- To date, Mapúa has accepted 173 inbound exchange students and sent 142 Mapúan students abroad. It has also sent 35 Mapúans and accepted 3 foreign students for summer and leadership camps, while 180 foreign students have participated in the Mapúa English camp. For the international plant visits, 1,318 students were sent to various destinations. Mapúa sent a total of 210 students to various companies for international on-the-job trainings.
- As of 2016, Mapúa has more than 80 industry and academe partners abroad.

- Mapúa's Team Aguila recorded a fuel consumption of 335 kilometers per liter, the highest mark the Philippines has made so far. The team ranked second among 35 competitors in all of Asia in the Prototype Gasoline Category in Shell Eco-marathon 2016.
- The Mapúa Cardinal Singers (MCS) brought home a total of eight awards, including being hailed as Voices of Asia, at the recent Asia Cantate 2016 held in Hong Kong.
- Alec Denji Santos, a senior high school student under the STEM strand, won the Gold award for a device with built-in sensors against illegal loggers and forest fires during the 5th World Invention Creativity Contest in Seoul, South Korea.
- Mapúa president Dr. Reynaldo B. Veja is made an Honorary Fellow of the ASEAN Federation of Engineering Organizations (AFEO). He also presented a proposal to create a *Global Academy of Biosphere Science* to the 4th World Conference on Biosphere Reserves.

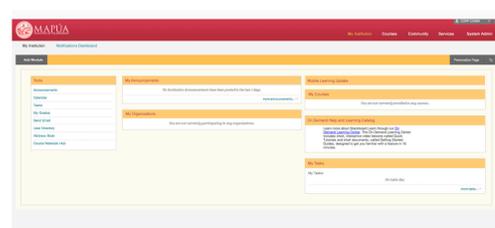


Domain

- National stature as a base for internationalization efforts
 - Most number of engineering programs with CHED's Center of Excellence status nationwide
 - 287 board toppers on record since 2002
 - Only local institution offering Biological Engineering and Technical Communication
 - Started offering BS Physics for SY 2016-2017
 - Mapúa Cardinals, Red Robins showed basketball prowess in NCAA Season 92
 - Best Film Award in DOST's Indie-Siyensya Competition
 - First and second places in DTI - Design Center of the Philippines' Capture Manila 2016, featuring streetlight designs by students to illuminate the Roxas Boulevard
 - Alumnum participated in short film category of the Cannes Film Festival
 - Groundbreaking of Davao campus, Malayan Colleges Mindanao

Digital

- Mapúa Institute of Technology raised the bar in digital education after announcing the implementation of Digital Days during which synchronous online classes were held. So far, Mapúa can deliver virtual lectures simultaneously to about 2,000 students in about 80 classes at any particular timeslot in a day.
- Mapúa launched Radio Cardinal, an Internet radio spearheaded by the the Institute's English Language Center.



With excellence imbued: MCL at 11

2016 has been a historic year for Malayan Colleges Laguna (MCL) as it once again made a name for itself in various academic and nonacademic undertakings.

Number one private school in CALABARZON

MCL has had outstanding performance in licensure and certification examinations. It obtained a 100% passing rate in eight this year: two Mechanical Engineer Licensure Exams, two Electrical Engineer Licensure Exams, the Amateur Radio Operator's Licensure Exam, the Electronics Technician Licensure Exam, the Industrial Engineering Certification Exam, and the Certified Public Accountant (CPA) Licensure Exam.

With a passing rate of 83.33%, MCL placed 3rd among the 238 schools with graduates who took the Master Plumber Licensure Examination last July. This is the second time that the institution became one of the top performing schools in this area.

In August, a student was named as MCL's first Certified Management Accountant (CMA). The CMA Certification is granted by the Institute of Management Accountants, Inc. (IMA), a worldwide association for accountants and professionals working in business.

In October, Engr. Kristoffer F. Catabui placed 3rd in the Electronics Engineer Licensure Exam, making him MCL's 17th topnotcher. More graduates were added to MCL's roster of topnotchers, ranked 6th, 14th, and 16th in the Industrial Engineering Certification Examination for 2016.

Having attained a weighted ranking of 85.8% on the licensure exams its graduates have taken part in last 2016, MCL was marked as the number one private school in CALABARZON and the 10th best school in the Philippines.

MCL students continue to make an impression

A Communication-Multimedia Arts (MMA) graduate won 1st place under the Motion Graphics Category of last year's National Digital Arts Awards (NDAA). His entry, "Ang Pinoy sa Digital Age," was about how average Filipinos can responsibly use new

technologies while maintaining their identity.

In their debut participation, the Malayan Team WIZARDS joined the Shell Eco-marathon Asia 2016 with the three-wheeled prototype vehicle, KALASAG. This competition challenges students around the world to design, build, and drive the most energy-efficient car.

In February, a group of Hotel and Restaurant Management (HRM) and Tourism Management (TM) students won major awards in the Council of Hotel and Restaurant Educators of the Philippines (COHREP) Region IV Skills Competition. The event had two sets of competitions: Tourism, and Culinary and Restaurant Services.

In the same month, a team of Computer Engineering (CpE) students emerged as the champion in the CpE Challenge 2016: Interscholastic Quiz Bowl.

CpE students from MCL won three awards at the 2016 Institute of Computer Engineers of the Philippines (ICPEP) Regional CpE Challenge. Three groups triumphed in their respective categories: Logic Circuits Design (1st runner-up), Programming (Champion), and Quiz Bowl (Champion).

A team of ME students placed 1st runner-up in the National Quiz Contest at the 6th Philippine Society of Mechanical Engineers (PSME) National Students' Conference at the SMX Convention Center, Pasay City.

In the field of sports, the MCL Men's Table Tennis Team smashed their way to first place among seven other schools in the Southern Luzon Colleges and Universities Athletic Association (SLCUAA) Table Tennis Competition.

MCL to carry on tradition of excellence

After a decade of excellence and virtue, MCL continues to prove that being young in the academe does not keep it from being excellent. Its achievements and quick ramp-up, as said by MCL President and CEO Dr. Reynaldo B. Veja, "stem from its rational approach to planning and the conscientious implementation of such plans." ■

Malayan Science marks its 11th year: Commitment to mission... Fulfillment of the vision

For Malayan High School of Science (MHSS), being "a global center of excellence in secondary education especially in the area of science and technology" is both a vision and a mission. Still young at 11 years and with a long way to go as an educational institution, MHSS already has a global mindset, providing its students opportunities to excel not just locally but also internationally. The school's forward-looking, global approach in forming its students necessitates it to be present in the international scene and to exceed the standards set forth in the international arena.

Dr. Reynaldo B. Veja, MHSS President, charts MHSS's specific steps to realize its vision-mission: "MHSS can be a global center of excellence by having a curriculum that is benchmarked with the best in the world, a faculty that is current in their respective fields, and an infrastructure that matches the requirements of its curriculum."

Dr. Veja believes that for MHSS to be a global center of excellence, the school must first be "globally engaged in international student competitions and other activities."

2016, a year that has been

Last year, the school obtained a great deal of success in its academic and co-curricular endeavors. Topping the list is the pilot implementation of the Senior High School program with the Science, Technology, Engineering, and Mathematics (STEM) academic strand offering. Next is the Mapúa-Malayan Red Robins' moving from the cellar to the very top of the NCAA Season 92 Juniors Basketball championship. Audrey Gabrielle Tan, an honor student, carried the Malayan flag on foreign soil competing in a Mathematics competition. Several students competed and won from interschool to national levels in Math, public speaking, and robotics contests. Student athletes also represented not just MHSS but the entire National Capital Region in basketball and gymnastic competitions. And the list goes on.

Looking back in the last 11 years, MHSS has produced graduates now excelling in the best Philippine universities, and then being leaders in various sectors.

The present toward the future

According to the MHSS Principal Jocelyn L. Antiporda, the foundation week is a good opportunity for reminding the entire MHSS community of the vision-mission of the school and their personal commitment in making it happen. The school administration encourages the students as well as the faculty to aim for excellence in every school activity.

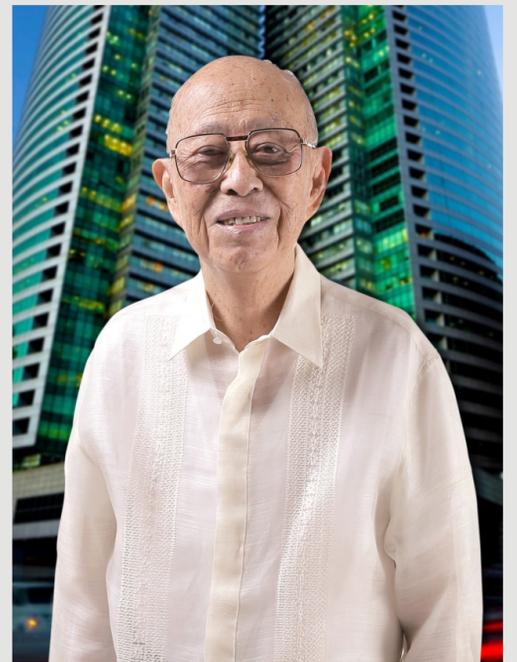
"The vision-mission of MHSS is inculcated in our students and faculty through seminars and conferences, trainings, advance studies, national and international competitions," Antiporda explained.

This year, the school's first batch of senior high school students will be moving on to Grade 12. Part of their curriculum will be a course on Internet of Things (IoT), a network of smart devices communicating through the Internet. It enables objects to interact with one another through sensors to perform certain tasks. MHSS is the very first high school in the Philippines to offer this subject in the senior high school year.

"Our Mapúa faculty members, headed by Engr. Alejandro H. Ballado, Jr. in the School of Electrical, Electronics, and Computer Engineering will design the course for MHSS. They will then train MHSS faculty for the delivery of the course. We would also have to acquire the necessary equipment and facilities. We are really excited about this differentiating aspect of the MHSS senior high curriculum," Dr. Veja said.

Malayan High School of Science prides itself as one of the few high schools in the Philippines offering Robotics and Technology for students of Grades 7-10. Students are taught to design, program, and do basic electronics - a mix of engineering and the arts. According to Principal Antiporda, "the Robotics and Technology classes being offered at MHSS gives an advantage to our students especially in this present age of technological advances."

As a move to the future, the school is keeping abreast with the latest approaches in teaching, as well as the technologies that will make digital-asynchronous learning possible. MHSS wants to be a true global center of excellence and a premier science high school in the country, able to breed high-caliber scientists and well-armed graduates for various other fields. ■



The Mapúa Institute of Technology remains at the forefront of the Philippine education sector through its active engagement in promoting student welfare. On its 92nd year, the Institute continues to be dedicated to cultivating innovation through enriching and holistic programs. This commitment to excellence is shared by Mapúa's subsidiary schools, Malayan Colleges Laguna and Malayan High School of Science. We are proud of these institutions for supporting integrated learning and societal development in the country.

To everyone, congratulations!

Ambassador Alfonso T. Yuchengco
 Chairman
 Mapúa Institute of Technology

From Intramuros to Makati, to Laguna, and then to Davao, Mapúa continues to grow and to offer its brand of education to greater numbers of young Filipinos who have big dreams of making it in a fast-changing world. At the same time, with its internationally accredited programs, it is opening up to more young people of other nationalities who have the same dreams. With its improving digital capabilities it also hopes to reach professionals all over the nation and the globe who are desirous of advanced education. As it continues to extend its reach, Mapúa also continues to expand its intellectual capital with the flowering of its research activities, some conducted through linkages with schools and research institutions in other countries. Having blazed a trail in outcomes-based education and international accreditation, Mapúa hopes to chart more new territories in the years ahead.

Reynaldo B. Veja, Ph.D. Berkeley
 President and Chief Executive Officer
 Mapúa Institute of Technology
 Malayan Colleges Laguna
 Malayan High School of Science

For 92 years, Mapúa Institute of Technology has not wavered in its commitment in providing its students with education high in quality and current in content. Mapúa envisions itself as joining the ranks of prestigious universities in the world. In realizing this vision, the Institute needs a paradigm shift and focus in implementing an outcomes-based and learner-centered education. It challenges both students and faculty to engage in life-long learning by conducting and publishing researches. In its move for global benchmarking, Mapúa shall also increase the number of inbound and outbound faculty and students. The future looks bright for Mapúa.

Bonifacio T. Domínguez, Jr., Ph.D.
 Executive Vice President for Academic Affairs
 Mapúa Institute of Technology

This year, we celebrate our 11th founding anniversary. We commend our students, faculty members, staff, and the rest of the school community for their undoubting commitment to the ideals of Malayan Colleges Laguna. We take pride in the remarkable achievements of our graduates that propelled the rise of MCL as one of the top higher educational institutions in the country. Moving forward, rest assured that MCL will maintain its tradition of imbuing all its endeavors in the field of professional education, research, and community relations with excellence and virtue.

Engr. Dodjie S. Maestrecampo
 Executive Vice President and Chief Operating Officer
 Malayan Colleges Laguna

I take pride and pleasure in celebrating with you the 11th foundation day of the Malayan High School of Science. It is a day to commend ourselves for the undoubting spirit, courage of conviction, commitment to the ideals of MHSS. This year's theme: Commitment to Mission... Fulfillment of the Vision, a fitting reminder to ourselves that MHSS shall be a global center of excellence in secondary education primarily in science and technology. And on this day, we reinforce some more our commitment to the development of a well-rounded scientifically, socio-culturally and environmentally literate individual. Each year lays the foundation for ideas channeling our efforts towards MHSS aspirations. The coming year is another hurdle defining once again what we wish to achieve, and we begin prepared to take on the challenges of the world. We continue to strive to improve the quality of our school system, increase our standards in all aspects, identify strengths and weaknesses, and prioritize goals. Come, let us join hands and walk together through the road of success.

Jocelyn L. Antiporda
 Principal
 Malayan High School of Science

Mapúa is the vanguard of technological education in the Philippines. From its establishment in 1925, it has upheld a brand that cannot be tarnished even with the test of time. What is more amazing is the Institute's vigorous drive in advancing its quality of education, even with its name already at the podium of the best schools in the nation. The establishment of the Senior High School Department and its innovative curriculum is one proof of Mapúa's relentless pursuit for greater heights. And as the school celebrates another year of excellence and continues to move towards the attainment of its vision, may we all keep on practicing the values that distinguish us and emulate the brand of excellence that only a true Mapúan is destined to have. Viva Mapúa!

Dionisia Lanuza, Ph.D.
 Senior High School Principal
 Mapúa Institute of Technology

Congratulations to Mapúa Institute of Technology, Malayan Colleges Laguna, and Malayan High School of Science! The opening year of the Senior High School in MCL has not been without challenges and birth pains. But thanks to everyone's commitment and dedication, we are off to a great start! Whenever a parent or a student expresses appreciation for their schooling with us, I can't help but smile and acknowledge that this is a fruit of our teamwork and passion for excellence. In the coming years, we envision MCL-SHS to become a benchmark for other schools in the different aspects of the delivery of the SHS curriculum and the attainment of the learning goals of the students. They can expect us to persevere in improving what we've started. We are a long way from having the perfect SHS system, we want to get better and better. Long live Mapúa, MCL, and MHSS! May we have many more years of being bastions of excellence and virtue for our young people today, our leaders tomorrow!

John Vincent D. Salayo
 Senior High School Principal
 Malayan Colleges Laguna

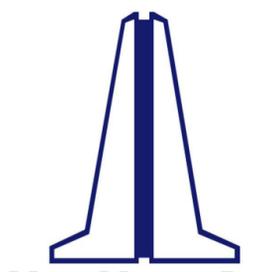
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