

MATERIAL ADVANTAGE AIST ITM STUDENT CHAPTER

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CHAPTER OVERVIEW

The **AIST-ITM Student Chapter** of the Instituto Tecnológico de Morelia (ITM) was founded and recognize for the Material Advantage Student Program in 2018. The AIST-ITM Student Chapter is one of four in Mexico and has the largest number of members in the country with about 85 affiliates. This student aggrupation gives its members a competitive advantage in the professional field, due to the large number of courses and extra preparation to develop their abilities and their hard and soft skills. The Instituto Tecnológico de Morelia and Materials Engineer Department work together to provide the best preparation for the future Materials Engineers.

This Student Chapter is a group of associated students with the philosophy that together as members can generate a social PACTO (pact) as future professionals, through:

- Professional preparation
- Application of knowledge
- Collaborate in acquiring knowledge, and so forth
- Transcend to
- Obtain a better nation

Mission

Develop activities that promote the development of the members' skills and abilities, related to the materials engineering field focused on the steel and metallurgy areas. As well as contributing to improve the educational level within the institution and creating an environment of trust among those who belong the chapter.

Vision

To generate in students an objective vision of the career, scope, study and work fields. To be a bridge between students in materials engineering area and the industrial sector in the country, through participation in the several activities undertaken.

Top records

- For three year in a row, we organized The Third Colloquium of Iron and Steel, gathering 100 students in a 2-day event.
- We won one of the five prizes of The Real Steel Video Contest, sponsored by Association of Iron and Steel Technology (AIST).
- We are the Material Advantage Chapter with the largest students registered in Mexico for two years in a row.

HIGH BOARD



Octavio Barrón

President



Grecia Guevara

Vice President



Gladys Durán

Treasurer



Oscar Avila

Secretary

BOARD



Rodolfo Canales

Marketing



Carlos Saenz

Logistics



Fatima Soto

Webmaster

2019-2020 HIGHLIGHTS

Through all of this year (June 2019 - May 2020) the AIST-ITM Student Chapter had some remarkable achievements.

- The Third Iron and Steel Colloquium was organized and held by the AIST-ITM Chapter in a two-day event, with 100 assistants.
- The board participated in the Real Video Steel Contest sponsored by AIST with the video “Ponys Metalúrgicos” and received a prize of 1000 dollars. We are the only student chapter in Mexico to participate in this competition.
- Gerardo López, member of the Student Chapter won the Steel Intern Scholarship 2020 sponsored by AIST, being the first student in our institute that obtains this scholarship.
- The Vice-president of this Student Chapter, Grecia Guevara, won the Recruit a Member Challenge 2020, sponsored by Material Advantage.
- Our annual Student Plant Tour was published in Iron and Steel Technology magazine in March 2020 Edition.
- Our activities were published in the AIST México Chapter magazine “Hierro y Acero” The magazine is distributed in Mexico among the steel producers and the metal-mechanic industries. We were published in the 79th, 80th and 81st editions of the magazine.

STATISTICS

- Membership continues with +80 active members.
- 8 informative meetings/outreach events with students.
- We held 5 professional development events
- 17 technical/educational events
- 1 annual industrial tour visiting 3 different industries
- 5 guest speakers associated with the university and 11 guest speakers not associated with the university.
- 3 virtual sessions with guest speakers.
- 6 publications in online newspapers about our activities.

PROGRAMMING

Part of our vision is to generate in students an objective vision of the Material Engineer career, and the advantages that include being part of this chapter. We want to do so among all the students from the juniors to the seniors. In order to achieve our vision, several activities were held through the year focused in the different grades in the career.

Informative meeting

In this event, the board informs to members important information about their membership, the scholarships and benefits they have as members of the four partnerships of Material Advantage, as well as some of the programmed activities for the semester. Also, the different international events they can assist like the MS&T 2019, different courses they can take and the resources available for our use. In our annual informative meeting, we hosted about of 50 assistant in 2 meetings.



Board elections and presentation

The board is elected semiannually, but part of the past board continues to have continuity in the activities and long-term projects. There are two elections per year to elect the classmates that are going to be part of the board. In this event some students previously interviewed by



the current board, talk to the members and present the reasons why they want to be in the board and their projects and ideas to implement as part of the board.

Once the members have elected the new board members, we have two board presentation events; one is held in August and the second one in January. In these events, authorities of the Instituto Tecnológico de Morelia, professors and members and non-members students gather to hear about the achievements of the Chapter members through the semester, the upcoming activities, statistics and to encourage others to join this project.

Junior students welcome

Every year in August there are two groups of new students starting the Materials Engineer career at the TM. The Student Chapter give them a warm welcome to the community in a talk as well as encourage them to not give up in their path to their professional formation. Also, we talk them about the Student Chapter, the benefits of become a member, the opportunities, the scholarships, contests and other activities and events they can be part of if they become members. The two fresh students' groups give us a total of 60 future Materials Engineers reached at this activity.



Outreach to other careers

Studying Materials Engineering is not a requirement to be part of this Student Chapter, and some of the activities we conduct are not focused only in that area, but in the enrichment of the whole student body; that's why we held several meetings with other ITM careers that are compatible and share interest in the 4 MA partnerships and in the activities we held through the year.

In those meetings with Mechatronic, Electronic and Electrical Engineering we invited them to join the AIST-ITM Student Chapter and to assist to our technical meetings and other events. We also achieve generate some strategic alliances with other student chapters at the Tecnológico to give our members more benefits and grow even more their professional preparation. The total of the students reached by this talk was about 100.



CAREER DEVELOPMENT

During the year the AIST-ITM student chapter organized several activities for the members and non-members to take the opportunity of grow their resumé by taking courses, attend to conferences, meet with professionals as well as to create networking; all of this to help them to be more visible and eligible for the materials industry an research and specifically for the iron and steel industry and research, when the moment comes by.

SolidWorks course

This inter-semester course was designed for the students to take advantage of the summer brake by learning how to use this important software that is widely used in the industry. The PhD Julio César Villalobos-Brito was in charge to run the course



that took 12 hours per week for two weeks. At the final of this course, the attendees were prepared to present the first certification in Solid works. 12 students participated in this course.

Continuous Heating Transformation diagram construction using differential dilatometry course

This course was designed for senior classmates that currently are enrolled in their thesis projects and need to understand the principles of differential dilatometry.

The PhD student Alexis Iván Gallegos-Pérez was the



instructor in a 20 hours course, where we had the opportunity to know about the application of differential dilatometry and the equipment, how to acquire data and analyze the curves to build a CHT diagram and the best way to present this information in a technical report. Metal-mechanical industries are looking for engineers with knowledge in dilatometry, so this course provides us a huge advantage in the terms of finding job. 13 students participated in this course.

Introduction to the materials science course

This activity was considered for the freshmen students who recently enrolled in the engineering. This was a theoretical-practical course where Marco Eduardo Ponce-Becerra, senior student and member of the chapter, instructed the participants an

introduction to the science of Materials Engineering, metallographic preparation and the use of the optical microscope. There were 20 students that attended the course.



Materials inspection using non-destructive methods course

The Materials Engineer is often in charge of the validation of welded joints and others materials or in the investigation of a failure in the field. Not from all the materials can be taken a sample for their examination or validation so in order to get quality assurance or determinate the failure, some test had to be carried out in the place, and sometimes the material



itself cannot be damaged by such test. That's why it is important to include this course in the chapter members' career development.

This course was taken by sophomores and seniors who have the basis to have a better understanding of the metallurgical sight of the non- destructive methods' obtained results and give the proper answer to the failure analysis or the validation of a material.

The course was carried out in two components, one theoretical taken in the classroom and the other practical taken in the workshop. 14 students attended this course.

Matter and energy balance tutorials

Over the course of the career the students experiment some trouble having the better understanding of a few subjects that are key in our formation. In order to achieve our mission and give our members tools for their professional development, a concerned student Carlos Nissim Solis-Morales, member of this Student Chapter,



volunteer to give the needy classmates of a reinforcement in their acquired knowledge in class.

5th and 6th semester students took the tutorial and got an upgrade in their performance in their further classes that involve the matter and energy balances. Actions like this show the service vocation of the classmates that are part of this student chapter, making a difference in our colleges' professional development.

MS&T 2019 attendance

The Technical Meeting and Exhibition MS&T, organized by ASM, AIST, ACer and TMS organization, gives the students the opportunity to present their work with the research leaders in Materials field from all over the world. Last year, postgraduate student Antonio Oliver-Reynoso and PhD student and co-chair of



the AIST-ITM Student Chapter Monserrat Sofía López-Cornejo participated in this event as speakers, in the Applications of Modern Characterization Techniques to Ferrous Alloys and Steel Products and Characterization of Materials and Properties through Metallography, Mechanical Testing and Analysis - From Fundamentals to the Cutting Edge Symposiums. Monserrat and Antonio represented the Material Advantage Student Chapters from Mexico.

2019 MA Chapter Officer Workshop

As part of the activities of the MS&T 2019, Monserrat Sofía López-Cornejo, Chair of the Student attended the Material Advantage Chapter Officer Workshop, representing our chapter. This was a unique opportunity to create networking between the chapters around the world. In the discussion table held at the event, ways in which the chapters collect money, their main events, the outreach they achieve at their institutes, the management, how they distribute information and many others topic where discussed among the attendees to the workshop.

It was an exceptional opportunity for the chapter to share and receive advice from the different chapters, the multiculturality allowed the meeting to be very useful in the upcoming activities for the academic year.



The Making Shaping and Treating of Steel 101 attendance

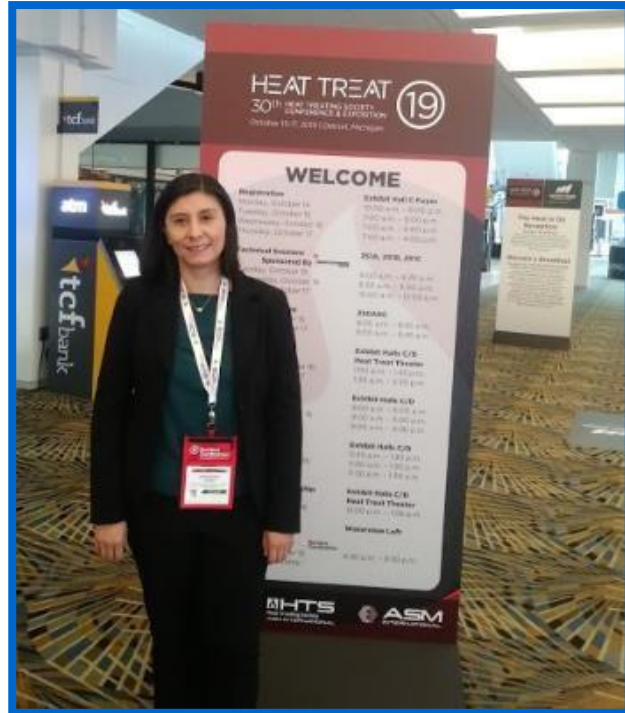
Vanessa Zamudio-Chávez and Ricardo Camacho-Sánchez, students from senior year, were the two classmates who applied for the Steel to Students Training Program, that covers the full cost of tuition and up to US\$600 in travel reimbursement to attend AIST's Technology



Training Conferences. Vanessa and Ricardo were supported by AIST to attend The Making, Shaping and Treating of Steel 101, in Milwaukee, Wisconsin, from October 29 to October 30 2019. This course is attended by iron and steel industry production workers and supervisors, equipment and materials suppliers to the steel industry.

Heat Treat 19, 30th Heat Treating Society Conference and Exposition

Heat Treat is a biennial show from the ASM Heat Treating Society, is considered the premier, can't miss event for the heat-treating professionals in North America. In this event, Instituto Tecnológico de Morelia was represented by Monserrat Sofía López-Cornejo, PhD Student in Engineering Sciences who attended the event from October 15 to 17, 2019, in Detroit, Michigan.



Monserrat presented the conference titled Pearlite Spheroidization and Its

Relationship with Tensile Strength in Hypereutectoid Steels in the Microstructural Development Session. For Material Advantage Student members, the registration to this event is free, so this increases the opportunity to attend these events, learn about heat treating processes from professionals and establish networking with industries related to this field.

ASM Querétaro Chapter informative meeting attendance

The AIST-ITM Student Chapter board was invited to one of the first meetings of the recently created ASM Querétaro Chapter, where they gathered representatives from local industries and anyone interested in joining their project to collaborate in the upcoming activities. A total of 8-chapter members students, attend the meeting.

As part of the actions to generate a benefit to the chapter members, the assisting board established strategic alliances with this chapter, notably about their most important event: Heat Treat Querétaro 2020, where normally the students should pay \$150 to get into the conferences, the board accomplished to get the entrance of 28 students and the adviser for free.



Annual plant tour

Each year in December the AIST-ITM Student Chapter visits steel plants in our country as a part of the activities the board plan for the members. In December 2019 we had the opportunity to visit three important steel producers in our country, Tenaris Tamsa, Ternium and Gerdau Corsa. The main goal of this annual tour is showing all the students' members the industrial processes, reinforcing knowledge acquired in



the classroom and have an enriching industrial experience for our professional training.

For most of the students this tour was their first contact with the steel industry, and we, the board, could see the excitement in their faces at the sight of the making, shaping and treating of steel, so we concluded that the steel plants tour objective was successfully

accomplished.

For some classmates this meant the begging of their passion for the iron and steel, for some other meant expand their horizons, but in any case, for all 30 of us it was a very enriching experience that will last in our memory every time we look back into our professional growth.

Heat Treat Querétaro 2020

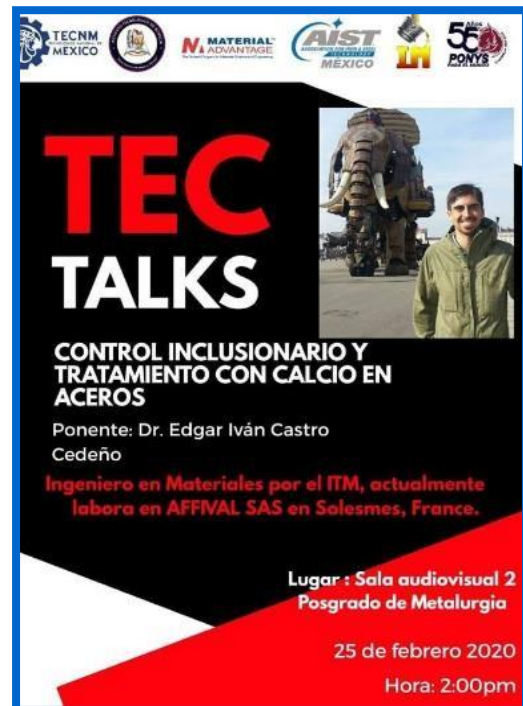
Once the board got the free pass for the chapter members, the 28 interested students in attend the event and the adviser Héctor Javier Vergara-Hernández, had the opportunity to enter the exposition and the conferences programed for March 3rd. During the first section of conferences there was an active participation from



the ITM attendees, in the lunch hour we had the opportunity to interact with expositors from all around the world, networking, practicing our second language and expanding the sight of the youngest chapter members about the career scope.

Tec Talks

"Tec Talks" are sessions where graduates of the Materials Engineering career who are currently enrolled in the industry, discuss with students their professional experience, the challenges as recent graduates and their daily activities as Materials Engineers in a 2-hour talk. On February 25 2020, Dr. Edgar Iván Castro-Cedeño presented the talk "Nonmetallic inclusions control with calcium in steels". Dr Castro currently lives in France and works in the research and development area of the metallurgical company "AFFIVAL SAS".



The main goal of this activity is to show the students the scope of Materials Engineering and the professional opportunities of the field. We hosted 60 students in this talk.

Create a resumé talk

The curriculum vitae is one of the more important tools to introduce ourselves to possible employers about our skills, academic background and abilities.

With this scope, we offered to senior students a 2-hour talk, about how to build a CV, tips in the work search after graduate and how to perform a successful job interview.

This talk was held by the AIST-ITM Student Chapter co-chair Monserrat Sofía López-Cornejo, and it was considered as a successful talk since we hosted 40 attendees.



The use of LinkedIn course

LinkedIn is the largest professional social network in the world, with more than 300 million professional profiles. We could say that it is the most popular place to have your CV online, and an invaluable tool to find job and network.

After the create a resume talk, we offered a minicourse, mostly taken by senior classmates about to graduate. AIST-ITM Student Chapter co-chair Monserrat Sofía López-Cornejo was the instructor in this course. We hosted 35 assistants.



Third Colloquium of the Iron and Steel.

AIST-ITM Student Chapter planned, organized and held from March 12 to 13, 2020, The Third Colloquium of Iron and Steel. In this annual event undergraduates and graduates have the opportunity to create networking, learn about topics in the iron and steel fields and have a clear idea about the professional opportunities in the iron and steel industry. This event has no participation fee for enrolled members of the student chapter and it's aimed for Materials Engineering students.

This year, we hosted 100 assistants from our faculty, between students, graduates, and professors. We had the participation of 5 important steelmaking companies, as well as an informative talk from Ternium HR.

This year speakers were:

- MSc. Andres Tenorio, from Nucor JFE Steel Mexico
- Dr. Fabian Castro, from Ternium Mexico
- Eng. Armando Vargas, from DSI Underground Mining System Mexico
- M.S Carolina Flores, from Thyssenkrupp Mexico.
- Eng. Pablo Cesar Reyes and Eng. Julian Hernández, from Gerdau Corsa.

In the framework of the activities held in the event, we had a mini-course of Differential Dilatometry for Steels, offered by MSc. Alexis Gallegos, PHD student in our Institute.

There were several forums in which the members had the opportunity to express their doubts in different areas like: steelmaking process, quality control, heat treatment, coatings and dilatometry. Also, former ITM students enrolled in different companies shared their experiences and challenges as a recent graduate.



Micrography contest

This contest was part of the activities in The Third Colloquium of Iron and Steel. With the participation of seven members of the AIST-ITM student chapter. Each participant presented a maximum of three micrographs of personal authorship. The judges of this contest were professors of our faculty. The winners were awarded with 50% and 25 % discount in the annual membership payment and one kit with souvenirs.



SERVICE

The outreach to teenagers, children and other engineer students is the key to the growth of the chapter, encouraging the interest in STEM areas. If there are more people interested in a STEM area and specifically in the materials science and technology, indirectly this student chapter and the society will go further in innovation, research and forefront for the materials, iron and steel industry problem solving.

Reforestation

On August 31, 2019, the student chapter participated in the reforestation of a nature reserve located in a region of Morelia, Michoacán called "Piedra del indio", in collaboration with the "Club de Excursionismo y Montañismo EO A.C." and "PROGENA A.C.". The reason for the reforestation was to collect water for the aquifers in the region.



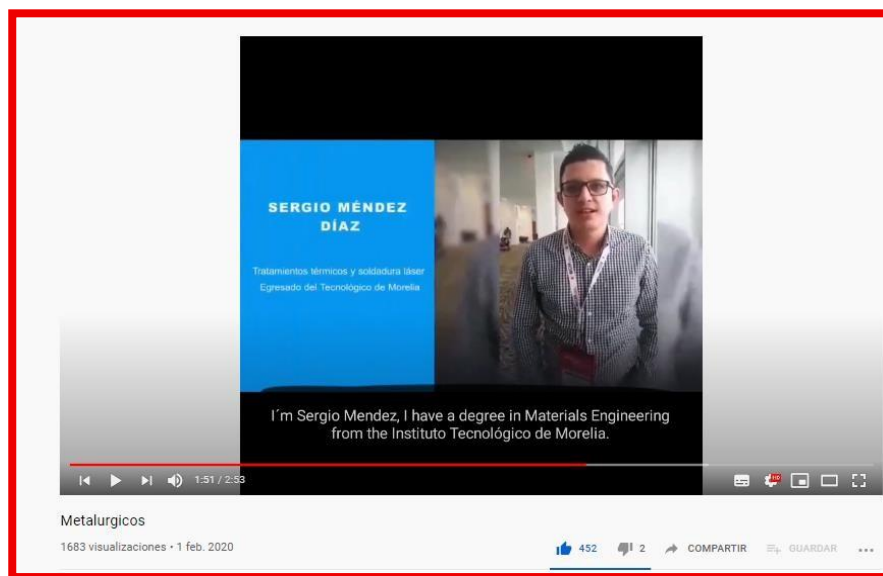
We reforested with "Pinus patula" trees. All the members involved in this activity were provided with the necessary tools to be able to dig the holes and plant the trees, as well as a hydration kit and oranges to keep them hydrated during the activity. At the end of the day nearly 1,000 trees were planted, a great achievement by all the people who participated and thus we contributed as a student chapter to our environment.

Real Steel Video Contest

This year, it was the first time that we participated in the Real Steel video contest organized by Association of Iron and Steel Technology. We decided to participate for two reasons, first at all, to win the price sponsored by AIST and also have a video to engaged more high school students to study Materials Engineering and show them where graduates from our Institute are working. Actually, in our informative talks, we show the video for all students.

We won a 1000 dollars price with our video “Ponys Metalurgicos”, that was edited with the help of Rodolfo Canales and Gladys Duran, both part of the student board, and we cannot be prouder of our video that help us to show our passion for iron and steel technology.

You can watch our video at AIST Youtube Channel.



Local radio station interview

ITM students have the opportunity to be interviewed in a local radio station, to talk about the activities related to Student Chapters.

We participated 2 times in a news radio program (99.1 Classics FM) to talk about the activities programmed for the August-December 2019 semester, our objectives as student board, and the social and technical courses that we offer.

“My experience at Ternium” speech in cooperation with WIE-IEEE

The alliances this Student Chapter holds with the other 16 students' chapters at the



ITM are invaluable. Due to these alliances, the Vice President Grecia Guevara-Flores had the opportunity to present a conference in collaboration with the IEEE Women in Engineering affinity group.

Between the topics held at the conference, she shared her experience at being one of the few women in the steel industry as summer intern at Ternium.

She talked about the challenges women face every day in the steel industry and any other industry, and

how to overcome those challenges by being confident and how the most important thing is to be aware of what you are capable of, totally independent of whether you are women or men.

Career Fair “Expo Orienta”

“Expo orienta” event, is a career fair that takes place every year at Instituto Tecnológico de Morelia. On February 28, 2020, the AIST-ITM student chapter was part in this event, hosting around 90 students who participated in a tour involving metallography and petrography laboratories, as well as welding processes, x-ray, physical and mathematical simulation, heat treatment, corrosion and degradation laboratories; the students also visited the foundry and ceramic workshop, and received an explanation on the operation of the vacuum furnace installed in the institute.

The favorite activity among the students was an aluminum casting, because students had the opportunity to add material to the melting furnace, and witnessed the process, from preparing the raw material to the casting. For this activity, teachers and student members of the chapter were involved in the planning, executing and control of the process.



SOCIAL ACTIVITIES

As Student Chapter we hold a lot of activities through the academic year, most of them are focused in the chapter members academic preparation and reinforcement to have better opportunities in the future. We share and generate knowledge among the members, give them specific tools for their professional grow, but the all-around education is a model whereby the students have a complete formation in every aspect, from the academic to the human and social, through the fellowship sense and pertinence to this chapter.

That's why the social activities are an important pillar in our formation and have a lot of benefits inside the group once will be colleagues in the materials, iron and steel industry.

Winter meeting

During the industrial visit organized by the chapter in December 2019, we had a pizza meeting with all the students members, having the opportunity to meet each other and had a nice time, in the beautiful city of Cholula, Puebla.

The 28 assistants to the meeting exchanged points of view about the industrial visit and shared their future plans, outside of an academic context, leading to more participation in a relaxed environment.



Promotional video recording

One of our strategies is to impact not only with the students of our institute, but also to show our work to metal-mechanical companies that attended the colloquium organized by the student chapter every year. To achieve this task were necessary collaboration and teamwork of not only the board but also several volunteer members for record our video.

The recordings took place in our laboratories and classrooms, it was an activity to interact with some members know their interests and get closer as a team, the final work was posted in AIST-ITM social media. You can watch our video at our YouTube Channel, AIST-ITM.



Ponys stay at home

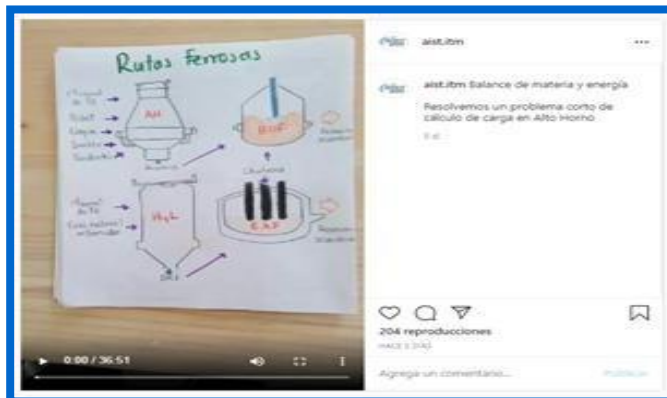
Due to the actual worldwide health crisis (Covid 19), it has been difficult for the Student Chapter Board to carry out the activities as planned early in the semester, but the creativity and the adaptation are some of the chapter members characteristics.



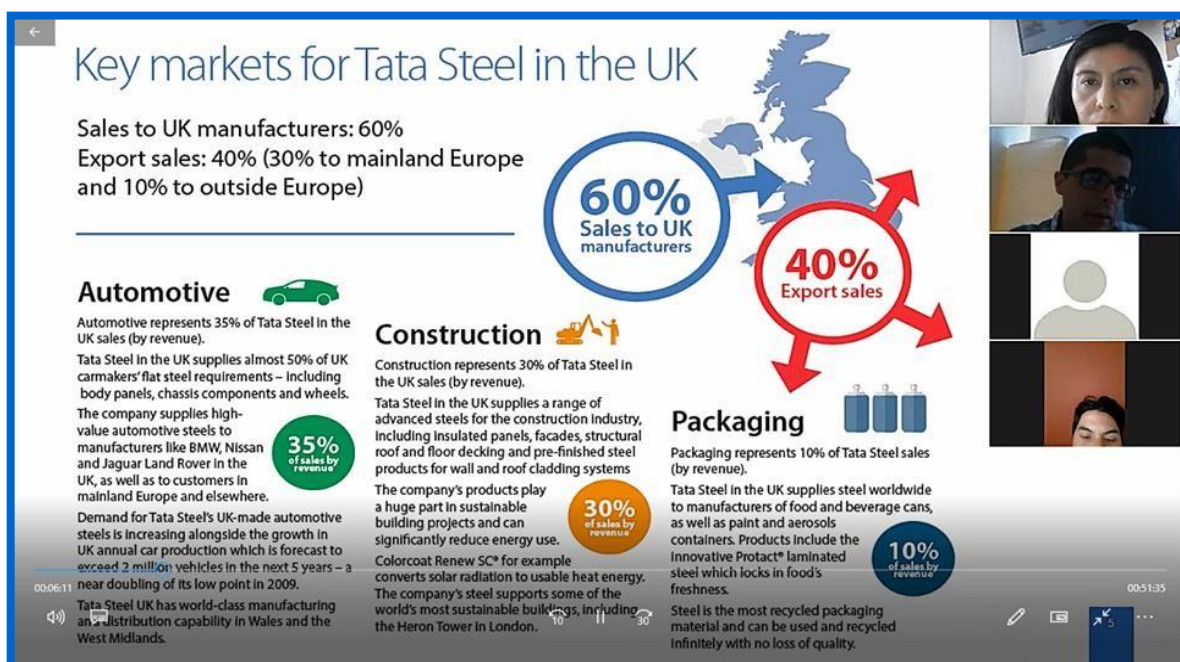
So, the board came out with some ideas to keep the schedule going on. These ideas have taken place in form of live transmissions through Facebook and Instagram. The first activity was a live

presentation showing the Facebook page followers the benefits of become or being an AIST-ITM Student Chapter Member.

The second activity took place through Instagram live, where Grecia Guevara, vice-president of the chapter, explained to the followers an introduction to the steel production and solve a specific exercise related to the matter and energy balance in a blast furnace.



We continue with Tec Talks sessions via videoconference, in a weekly session in Zoom, where we talk with graduates from our Institute. We also record every session so students can find them in our YouTube channel if they were not able at the time the session was developed.

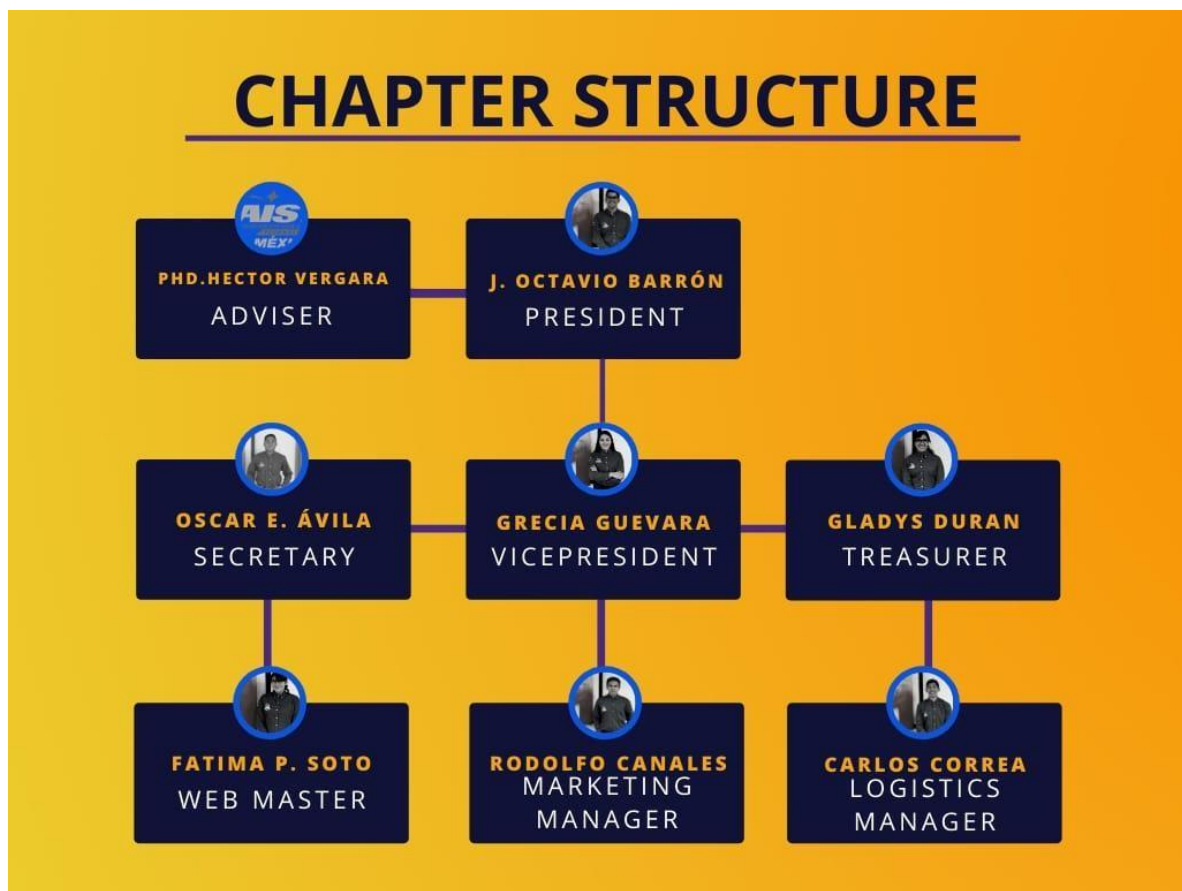


Through these activities, we stay close to those who are interested in make the most of this quarantine, by giving them some tools and offering a new way to take advantage of their MA membership.

CHAPTER MANAGEMENT

Work team was the key for all the activities that we held this year. In this section, we'll explain the duties for every member of the student board, our organization for elections, our communication channels and the fundraising methods that we implemented to be able to develop all our activities.

Chapter Structure



Job Description

President

- The president represents the student board in terms of resource management activities, organization of events in collaboration with other chapters and/or academies.
- The president is in charge of calling meetings with the entire work team of the board to establish work standards and also work strategies to carry out the activities planned for the semester.
- Authorizes and signs administrative documents and correspondence such as diplomas or certificates.
- Generate a good work environment by promoting respect among all without generating any type of retaliation or resentment.

Vice President

- This position in the board is aim to -as well as the others- lead the Chapter in the better way possible and make it grow.
- The vice president is in charge of taking responsibilities in case the president is absent.
- Has to be familiar with the duties of the president and the other board members to act as a guide whenever is needed.
- Is a pair that gives advice to the president and is responsible for a part of the management activities such as keeping all the board members tuned and make sure the chapter members are also informed of all the activities.

Treasurer

- The main task of the chapter treasurer is the good management of the chapter's resources, for scheduled events and courses.
- Make payments and collect debts.

- Keeps the student chapter account as clear as possible and informs to the rest of the board members the finances before the organization of any activity.

Secretary

- Is in charge of the delivery and reception of various documents such as registration forms of future members, invitation letters to speakers, etc.
- Keeps attendance records for chapter meetings.

Logistics

- As a logistics manager, duty is data collection.
- Filling in forms registration for courses.
- Manages audio equipment, creation of staff for extra activities, as well as its coordination.
- Works in conjunction with the treasurer to keep track of members and activities.

Marketing

- Has the responsibility of creating all the publicity for the chapter, that is, flyers or videos of the organized events, such as talks, courses, contests, industrial visits.
- Is in charge of elaborating all the necessary media for the events.

Webmaster

- Keeps the social media active to promote chapter activities.

Fundraising methods

- Annual Iron and Steel Colloquium fee for non-members.
- Souvenirs from Third Iron and Steel Colloquium (mugs, t-shirts and stickers).
- Technical courses held by the chapter

- Annual plant tour
- Getting financial support from scholarships and contents organized by MA Associations.

Elections

Due to the circumstance that we're all going through, the chapter adapted its activities already planned for the rest of the semester, one of which was the election for new members of our board. The whole process was done in a virtual way, to make sure that the most capable students choose the first parameter to enter was an interview with the adviser of our chapter and subsequently we had a video call (all the board and the applicants) to know them better and know their problem-solving skills. At the end of the interview it was given a task of writing an email as invitation to an event of our chapter

to some manager of a company, so that we would know their wording ability and his way of manage resources. All these tests helped us to know each other's skills and thus determine the position they will occupy in the next semester so we can start planning activities.



Communication

We use 5 social media platforms to announce our activities, shares news about materials science technology, photos and information about internships, contests and scholarships. We use Facebook, Twitter, Instagram, LinkedIn, and we have a YouTube channel.

- Facebook page: <https://www.facebook.com/AIST-ITM-157905934868283>

- LinkedIn: <https://www.linkedin.com/in/aist-itm-capitulo-estudiantil/>
- Instagram Account: <https://www.instagram.com/aist.itm/>
- Twitter Account: <https://twitter.com/AistItm>
- YouTube
<https://www.youtube.com/channel/UCB6mcA3NUy4rC7hxjEvWHIQ>

Channel:

Hierro y Acero Magazine

The magazine “Hierro y Acero” publishes technical data and important articles from the steel and metallurgical industries in Mexico. This magazine is sponsored and published by AIST México Chapter. You can find our activities in the editions 79, 80 and 81.

“Hierro y Acero” is distributed every three months and it’s free in Mexico, as well as in some Spanish-speaking countries. It is aimed at personnel who work in production companies, suppliers and academic institutions related to the metal-

mechanical industry. Through it, experiences, knowledge and technological innovations of the different processes involved in the manufacture of steel are shared, as well as transmitting relevant news and events in this sector.

<https://hierroyacero.com/>



Iron and Steel Technology (AIST)

Iron & Steel Technology is the premier technical journal for metallurgical, engineering, operating, and maintenance personnel in the iron and steel industry. As the official monthly publication of AIST, Iron & Steel Technology is the most comprehensive and widely circulated journal available today, dedicated to providing its readers

with the latest information on breakthroughs and trends in equipment, processes, and operating practices in the international iron- and steelmaking industry. Our annual plant tour was published in the March 2020 edition.

Student Plant Tours

In December 2019, AIST student members from Instituto Tecnológico de Morelia (ITM) visited three Mexican steel producers: Tenaris Tamsa, Ternium and Gerdau Corsa.

Students and faculty from ITM agree that plant tours are a motivating, skill-enriching opportunity. This was a few students' first interaction with the steel industry, which left them excited for their futures and inspired to learn more through higher education.

Plant tours offer students an up-close and personal experience, and allows for questions surrounding the greater steel industry. The AIST Foundation offers plant tour reimbursement up to US\$300 and can assist universities in connecting with steel producers in their areas. Visit [AIST.org/studentplanttours](https://www.aist.org/studentplanttours) to learn more about this exciting opportunity!



Online newspaper

1. Instituto Tecnológico de Morelia performs Iron and Steel Colloquium:
<https://www.mimorelia.com/instituto-tecnologico-de-morelia-realiza-coloquio-del-hierro-y-del-acero/>
2. AIST of the Instituto Tecnológico de Morelia renews student board:
<https://www.mimorelia.com/aist-del-instituto-tecnologico-de-morelia-renueva-mesa-directiva/>
3. Among 500 applicants, Tecnologico de Morelia student gets scholarship:
<https://www.mimorelia.com/entre-500-aspirantes-estudiante-del-tecnologico-de-morelia-obtiene-beca/>

4. Tec de Morelia attends a steel making course in the United States:_
<https://www.mimorelia.com/asiste-tec-de-morelia-a-curso-de-tratamiento-del-acero-en-estados-unidos/>
5. Tecnológico de Morelia encourage women's participation in engineering:_
<https://www.mimorelia.com/impulsa-tecnologico-de-morelia-participacion-de-mujeres-en-la-ingenieria/>
6. ITM students represent Michoacán in the United States:_
<https://www.sistemamichoacano.tv/noticias/educ/36612-estudiantes-del-itm-representan-a-michoacan-en-estados-unidos>



EDUCACIÓN
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TECNOLÓGICO
NACIONAL DE MÉXICO

Instituto Tecnológico de Morelia
Subdirección Académica
División de Estudios de Posgrado e Investigación

"2020, Año de Leona Vicario, Benemérita Madre de la Patria"

Morelia, Mich., 09/ABRIL/2020

SUBDEPENDENCIA: SUB. ACADEMICA
SECCIÓN: DIV. EST. POS. E INV.
OFICIO No.457/2020

To Whom it may concern:

As Advisor to the Material Advantage Student Chapter at the Instituto Tecnológico de Morelia, it is a pleasure to give my support to the student board to be evaluated as Chapter of Excellence. The student board has proposed a work program to involve students from the initial, intermediate and final semesters of the career in Materials Engineering of our Institute.

This year, the main goal for the student board was to enroll more students in the chapter. They began the first semester of the academic year with technical courses to improve skills such as Solidworks, dilatometric techniques and introductory workshops on materials science, the latter offered for freshmen students.

AIST-ITM members had great mobility attending various events, courses and programs organized by AIST, ASM, ACerS and TMS, the following stands out: MS&T 19, Steel to Student Program, Heat Treat 2019 and 2020, Steel Intern Scholarship, and winning both Real Steel Video Contest and Recruit a member Challenge 2020 organized by AIST.

For the third consecutive year, the AIST-ITM Chapter organized "The third colloquium of iron and steel" in March 2020, which is now considered a national event where some of the biggest companies in the steelmaking sector are eager to present technical conferences, to inform the students about work and internship opportunities, as well as industrial tours.

Starting in the second semester of 2020 and according to the sanitary measures imposed by OMS organization due to the COVID-19 Pandemic declared on March 11, the chapter continues its work and presents the "Tec Talk" program to organize videoconference with important graduates from our institution who are working in different cities of the world.

In summary, the AIST-ITM student chapter plays a supporting role for the dissemination of the Materials Engineering career and are looking to achieve that more young people in the city of Morelia, Michoacán, Mexico generate an interest in the study of metallurgy and applications for the use of iron and steel, providing opportunities for the personal and professional growth of our students with the attraction and connection of important companies in the sector. The board and all members have demonstrated high commitment, enthusiasm and organizational skills and have contributed to create net-working with industries related to our field.

For all of the above, I give my recommendation and support to the student board and its members.

ATENTAMENTE
"Técnica, Progreso de México"®

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