

# IRAP

Introduction to Research  
Abroad Program

## IRAP 2025 Technical Visits

February 14<sup>th</sup>, 2025



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UNIVERSITY



YUCATAN  
INITIATIVE



SIIDETEY



## Agenda

1. Welcome
2. YIP and IRAP background
3. IRAP 2024 feedback
4. IRAP 2025 Technical Visits
5. Q&A





# IRAP

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## Welcome and Introductions



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## The Yucatán Initiative



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## The Yucatán Initiative

The **Yucatan Initiative Project** is a collaborative platform for research, academics, and service between the State of Texas in the U.S. and the State of Yucatan in Mexico.

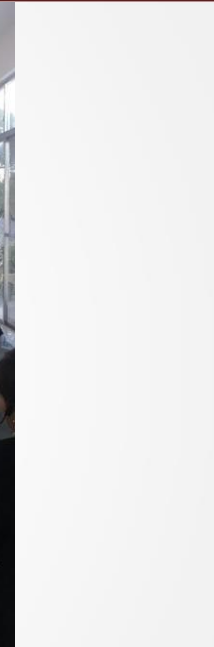
This project is sponsored by the Secretary of Innovation, Research, and Higher Education of the State of Yucatan, Mexico (SIIES) and Texas A&M University (TAMU).





# Objective

To establish an intellectual footprint **between SIIDETEX and TAMU**, consisting in the joint development of **solutions to regional problems** present in both the State of Texas and the State of Yucatan.



## Strategic Areas

### Research

- Phase I – Engineering (2014-2015)
- Phase II – Agriculture and Life Sciences (2015-2016)
- Phase III – Geosciences (2017-2019)

### Academics

- Into by Canieti
- ELCIR - IRAP
- Foundations of Engineering
- Anthropology Ethics

### Services

- EPICS
- CANIETI Executives ESL
- Uxmal Corridor Program in progress



**25 Research Projects**

Research, academic and service projects in Engineering, Agriculture & Life Sciences, and Geosciences between the State of Texas and the State in Yucatan, working jointly on the development of solutions to regional problems.

**Areas of Collaboration**



Aquifers



Coastal Dynamics



Early Warning Systems



Energy



Logistics



Agrobiodiversity



Animal Science



Biodiversity



Food-Nutrition



Horticulture



Water Quality



Geology





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## Program Overview



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# IRAP

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The goal is to **expose students to research and global programs** early in their careers.



## IRAP Objectives

- To learn how research can produce positive impacts on society, the economy, and the environment
- To learn how the scientific method can serve as an instrument to conduct research
- To learn how to formulate and present a research proposal through a transdisciplinary team aiming to solve a regional problem common to both Texas and Yucatan
- To develop global competencies: global fluency, adaptability, cross-cultural interpersonal skills, and an understanding of global dynamics in solution creation.







## IRAP Outcomes

1. Understand the **use of the scientific method** to produce research.
2. Distinguish the **difference** between scientific and non-scientific information.
3. Develop **basic skills to apply** the scientific method.
4. Participate in **laboratory research** that applies the scientific method.
5. Align the research proposal with the **2030 Agenda SDGs**
6. **Write a research proposal** that follows the scientific method.
7. Construct a **research poster** that follows academic and entrepreneurship standards.
8. **Present a research** poster in an academic setting.
9. Develop **global competencies**: global fluency, adaptability, interpersonal skills, and problem-solving abilities.



## IRAP Components



**Introduction to Research  
Abroad Workshop**



**Technical Visits to  
SIIDETEU/TAMU labs**



**Cultural Activities**







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## IRAP 2024 Feedback



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- **128 Students**
  - 60 TAMU
  - 68 SIIDETEX (MX)
- **12 Faculty Leaders**
  - 7 TAMU
  - 5 SIIDETEX (MX)

## IRAP 2024 Participants



TEXAS A&M UNIVERSITY  
College of Arts  
& Sciences



TEXAS A&M UNIVERSITY  
Education &  
Human Development



TEXAS A&M UNIVERSITY  
Engineering



ESCUELA  
NACIONAL DE  
ESTUDIOS  
SUPERIORES  
UNIDAD MÉRIDA



UADY  
UNIVERSIDAD  
AUTÓNOMA  
DE YUCATÁN



UNIVERSIDAD  
POLITÉCNICA  
DE YUCATÁN



TEXAS A&M UNIVERSITY  
Mays Business School



TEXAS A&M UNIVERSITY  
College of Agriculture  
& Life Sciences



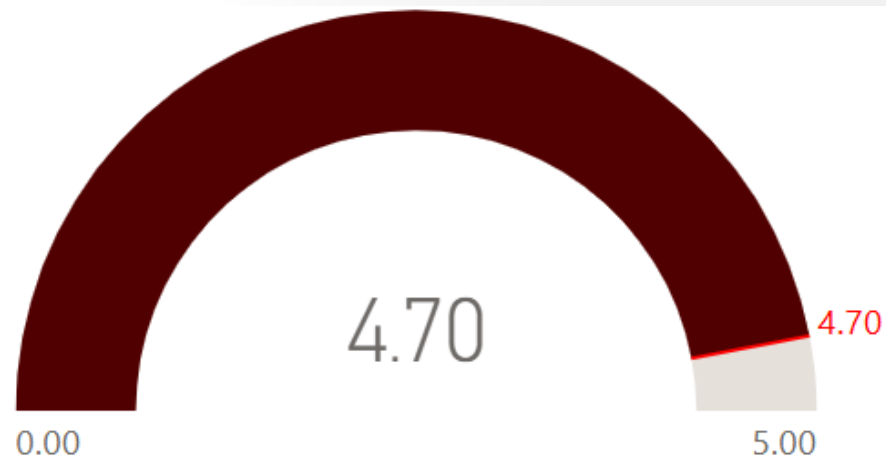
Universidad  
Marista  
MÉRIDA



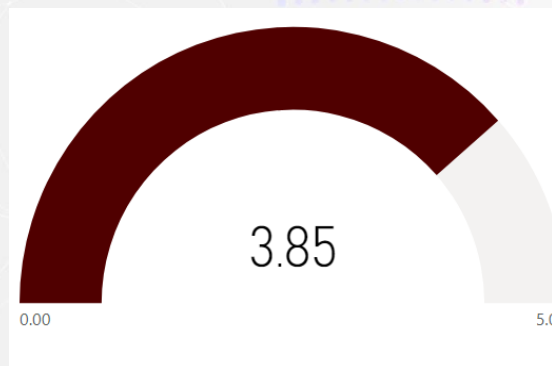
ANÁHUAC MAYAB



## Overall rate 2024



## Overall rate 2023



Attention Recieved

4.86

Work Atmosphere

4.78

Institution's Preparation

4.72

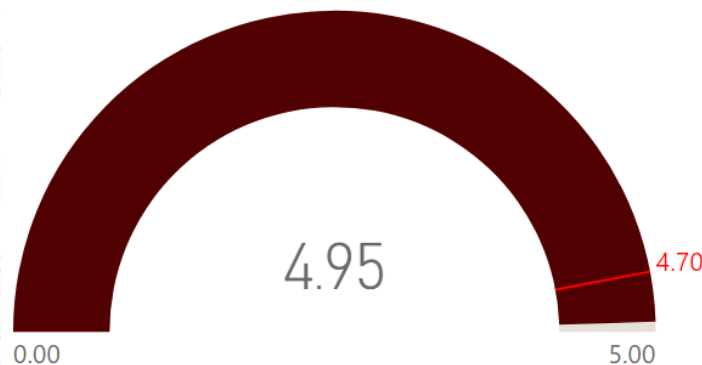
Academic Interest

4.49



## Individual reports

Individual vs. Overall



Attention Received

5.00

Work Atmosphere

4.91

Institution's Preparation

5.00

Academic Interest

4.91



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## Technical Visits 2025



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## The IRAP 2025

- **From May 11<sup>th</sup> to August 31<sup>st</sup>**
  - Yucatan Phase from May 11<sup>th</sup> to the 24<sup>th</sup>.
  - Virtual collaboration phase from June to August.
  - Closing week at TAMU from August 24<sup>th</sup> to the 31<sup>st</sup>.
- **67 Participants from A&M**
  - 60 Students
  - 6 Faculty leaders (4 traveling with the group)
- **34 Participants from SIIDETEX\***
  - 30 students\*
  - 4 Faculty leaders







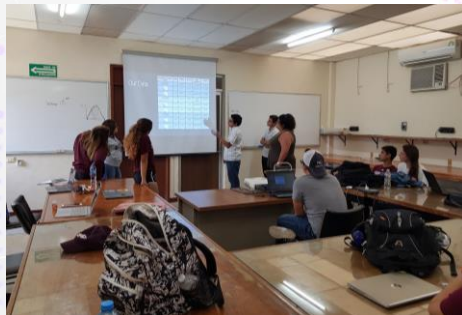
## Participants profile

- College 1st & 2nd year students
- Participant from  
Students from:
  - College of Engineering
  - College of Agriculture & Life Sciences
  - College of Arts & Sciences
  - Mays Business School
  - School of Education and Human Development









## Technical Visits

- Gain a **better understanding of how science works** “In science even the simplest and ‘obvious’ things have to be demonstrated to be considered true and objective”.
- Gain a better understanding of **how collaboration** between different fields of science (biology/food science/veterinary/engineering) leads to discovery, innovation, and creative problem-solving
- **Hands-on activities.**
- Learn about the scientific method implementation.
- Work with researchers.
- Expose the Yucatán research and innovation capabilities





Parque Científico y  
Tecnológico de Yucatán



## Host Universities

### Marista University of Mérida (Marista)



### Autonomous University of Yucatán (UADY)

#### School of Mathematics



### Polytechnic University of Yucatán (UPY)



### Anáhuac – Mayab University (UAM)





# Technical Visits Calendar

	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6
	13-May	14-May	15-May	16-May	19-May	20-May
	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday
UADY						
UPY						
Marista						
Anáhuac - Mayab						



## Visit Agenda

- 09:00 am      -Welcome
- Institutional presentation
  - Practice introduction
    - Activity objective
    - General rules
    - Presentation of activities
- 09:30 am      Practice development
- 12:00 pm      **Lunch break (30 minutes)**
- 01:00 pm      Final presentations and visit **wrap-up**
- 02:00 pm      End of the technical visit





### Technical Visit Info

**Visit Date:** Monday, May 22

**Institution:** Centro Geo

**Lab name:** National Geointelligence Laboratory - Socio-Ecological Systems

**Lab Description:** The National Geointelligence Laboratory (GeoInt) is a scientific-technological association of the National Council of Science and Technology (CONACYT) formed by the Center for Research in Geospatial Information Sciences (CentroGeo), the Center for Research in Mathematics (CIMAT), and the Potosino Institute of Scientific and Technological Research (IPICYT). Under the operation of CentroGeo, the laboratory was designed to facilitate the application of institutional capacities and their allies to the generation and transfer of knowledge to the public, private, and social sectors, through the development of new projects, products, and services specialized in Geospatial Information Sciences (GIS) and Geointelligence focused on meeting the emerging needs of real-time analysis of large volumes of geospatial data.

**Faculty in charge:** Dr. Gandhi Samuel Hernández Chan

**Visit requirements:** Cap or hat, laptop, at least one cell phone with the ability to download an application. Bottle with water, sunscreen, mosquito repellent, clothing with UV and sun protection (long sleeves).

**Covid Protocols:** Use of face masks

## Technical Visit Fact Sheet

- Date of visit
- Institution
- Lab name
- Lab description
- Activity description\*
- Lab responsible
- Visit requirements
- Additional notes\*
- Contact info
- Personnel involved



## Economic support

1. **15 USD** will be provided to each lab per student hosted during the visit. \$225\* for an estimated group size of 15 participants\*.
2. Economic support will be available through Universidad Marista.
3. To receive payment, each institution must submit an official invoice to Universidad Marista following the provided guidelines.



## Next steps

1. All 2024 participating institutions are expected to receive their assessment report no later than February 21<sup>st</sup>
2. Institutional confirmation is required by email no later than March 10<sup>th</sup>.
3. In-person meeting on March 20<sup>th</sup> \*(time and location TBC)
4. Lab/activity information must be submitted by April 11<sup>th</sup> (*link to submission form will be provided once the institution confirms their participation*)
5. Each participating institution will receive the student breakout list by April 28<sup>th</sup>.
6. Collaborators involved in the technical visit must be listed by May 4<sup>th</sup>.
7. A farewell ceremony will be held on Thursday, May 22<sup>nd</sup> at 7:00 pm in the Universidad Marista, to which all are invited..





# Questions?

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