



PAMEC 2022

Pan American Marine Energy Conference

Ensenada, Mexico June 19-22, 2022

Conference Program



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PAMEC 2022 | Conference Program

Pan American Marine Energy Conference

Ensenada, Mexico

Friday, June 17

Time & Room	Pre-conference workshops	Speakers	Organization
13:00 - 17:00 UABC-IIQ	Marine renewable test and research centers workshop <i>(For detailed description click here)</i>	Dr. Daniel J. Hasselman	FORCE
		Ms. Carrie Schmaus	Water Power Technologies Office, US Department of Energy
		Dr. Dernis Mediavilla	EMEC
		Dr. Francisco J. Ocampo Torres	CEMIE-Océano A.C.
		Dr. Bernardo Esquivel – Trava	CICESE
		Mr. Mateo Roldan Carvajal	Universidad Nacional de Colombia
		Dr. Oscar Andres Alvarez Silva	Universidad del Norte

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Saturday, June 18

Time & Room	Pre-conference workshops	Organization
10:00 - 12:00 <i>UABC-IIo</i>	Workshop on international data sharing for marine renewable <i>(For detailed description click here)</i>	Sponsored by Pacific Northwest National Laboratory, National Renewable Energy Laboratory, Sandia National Laboratories, and Ocean Energy Systems.
13:00 - 17:00 <i>UABC-IIo</i>	WEC-SIM Workshop <ul style="list-style-type: none">• Theory of WEC-Sim• WEC-Sim Code Structure• WEC-Sim Advanced Features• WEC-Sim Application Cases• Open Q&A and User Case Specific Discussions <i>(For detailed description click here)</i>	National Renewable Energy Laboratory & Sandia National Laboratories
13:00 - 17:00 <i>UABC-IIo</i>	Workshop on environmental effects of marine renewable energy <i>(For detailed description click here)</i>	Sponsored by Pacific Northwest National Laboratory, CEMIE-Océano, and Ocean Energy Systems

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Sunday, June 19

Time & Place	Activity
17:00 - 18:00 <i>Centro Cultural Riviera del Pacífico</i>	Conference registration
17:00 - 20:00 <i>Centro Cultural Riviera del Pacífico</i>	Welcome cocktail reception

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Monday, June 20

Time	Session		
8:00 - 8:30	Late registration CICESE - Auditorio Institucional		
	Conference opening and welcome CICESE - Auditorio Institucional Chair: Norma Herrera		
	Opening address	Lic. Pedro Miguel Rosaldo García, Director General de Investigación, Desarrollo Tecnológico y Formación de Recursos Humanos en representación de Ing. Norma Rocío Nahle García, Secretaria de Energía	Secretaría de Energía México
8:30 - 9:00	Welcome to PAMEC 2022	I.Q. Yutsil Guadalupe Sanginés Sayavedra, Subdirectora de Energías y Cambio Climático Dr. Walter Daesslé Heuser Bruce Cameron	CONACYT Instituto de Investigaciones Oceanológicas, Director PAMEC.Energy Association, President
	Welcome to CICESE	Dr. David Hilario Covarrubias Rosales	CICESE, Director General

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Monday, June 20

Time	Session		
	Plenary Session: Marine Energy and the Blue Economy – A Global Perspective of Developments and Opportunities <i>CICESE - Auditorio Institucional</i> Chair: Francisco J. Ocampo-Torres		
9:00 - 11:00	PRONACES-CONACYT An update on the European marine renewable energy sector' Offshore Wind - Success of a global industry Powering the Blue Economy	I.Q. Yutsil Guadalupe Sanginés Sayavedra, Subdirectora de Energías y Cambio Climático Cameron Johnstone Mark Leybourne Andrea Copping	CONACYT Strathclyde University World Bank PNNL

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Monday, June 20

Time	Session		
11:00 - 11:30	Coffee Break		
	Session I.a Environmental Impacts <i>CICESE-Auditorio Institucional</i> Chair: Andrea Copping		
11:30 – 13:00	Guidance on environmental effects to support decision-making for MRE consenting	D. Rose	Pacific Northwest National Laboratory Seattle, Washington
	Taking a broader look at environmental and ecological effects of marine energy development	L. Hemery	Costal Sciences Division, Pacific Northwest National Laboratory, WA
	A systematic review on the environmental impacts for ocean current marine renewable energy	A. Alamillo	Instituto de Ecología, A.C.
13:00 – 13:30	Posters and Networking <i>Gym</i>		

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Monday, June 20

Time	Session		
	Session I.b Salinity gradient <i>Auditorio Pedro Ripa, División de Oceanología. Chair: Marcos Lafoz</i>		
11:30 – 13:00	Analysis of the validity of standard assumptions for estimating the available energy in a salinity gradient	M. Roldán	Research Group in Electrochemical Engineering , Universidad de Colombia
	Characterization of reverse electrodialysis process: A study case using Ti electrodes	J. Hernández	National Polytechnic Institute (IPN)
	First field pilot of salinity gradient energy in Latin America: The Magdalena River, Colombia.	O. Alvarez	Universidad del Norte
13:00 – 13:30	Posters and Networking <i>Gym</i>		

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Monday, June 20

13:30 - 14:30	Lunch <i>Salón de Usos Múltiples SUM</i>		
	Session II.a OTEC <i>CICESE-Auditorio Institucional Chair: Manuel G. Verduzco Zapata</i>		
	An assessment of the financial feasibility of an OTEC Ecopark: a case study at Cozumel Island	P. Garduño-Ruiz	Insitituto de Ingenería, UNAM
14:30 - 16:30	Feasibility and enviromental effects of small scale OTEC in the United States	A. Copping	Pacific Northwest National Laboratory Seattle, Washington
	Conceptual design of an open-cycle OTEC power plant using the thermal waters at La Jolla beach, Ensenada, B.C.	L. Balan Pool	Departament of basic Sciences and Engineering, Universidad del Caribe.
	Pilot of OTEC-CC-MX-1kW prototype plant	A.E. Cerezo	Departament of Basic Sciences and Engineering, Universidad del Caribe.

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Monday, June 20

Session II.b Grids and integration: REMAR Auditorio Pedro Ripa, División de Oceanología Chair: Rodrigo Rojas			
14:30 - 16:30	Energy storage as a solution to integrate wave energy in electric grids	M. Lafoz	Unit of Electric Power Systems, CIEMAT
	Marine renewable energy in Colombia: Steps to integrate into the grid	A. Osorio	CEMARIN
	Marine energy test site for Chile: Selecting sites and identifying its potential applications	N. Almonacid	Marine Energy Research and Innovation Center (MERIC)
	Synthetic inertia for the integration of variable renewable energies in electric grids	J.Ugaz Peña	Universidad Nacional de Ingeniería
	Grid integration of marine renewable energy in Costa Rica: A current and foresight perspective	J.R. Rojas	Costarrican Electricity Institute

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Monday, June 20

16:30 - 17:00	Coffee Break and Networking		
	Session III.a Test sites and opportunities <i>CICESE-Auditorio Institucional. Chair: Matthew Lumley</i>		
	The role of test centres on supporting innovation and technology development on marine renewable energy and energy systems	D. Mediavilla	European Marine Energy Centre
17:00 - 18:30	On the implementation of a natural laboratory for ocean energy research and development in Bahía de Todos Santos, Baja California, México.	B. Esquivel-Trava	Departamento de Oceanografía Física, CICESE
	Offshore Aquaculture as a market for ocean renewable energy: opportunities, challenges, and recommendations	L. Garavelli	Costal Sciences Division, Pacific Northwest National Laboratory, WA

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Monday, June 20

Session III.b Ocean and Tidal currents technology and resources Auditorio Pedro Ripa, División de Oceanología Chair: Craig Chandler			
17:00 - 18:30	From small to large scale vertical axis helical turbine models	C. Echeverría	Instituto de Ingeniería, UNAM
	Effects of solidity on a tidal turbine performance	G Peyrasse	School of Engineering at Cardiff University
	Vertical structure analysis of Reynolds stresses and turbulent kinetic energy from ADCP measurements in a meso tidal bay	V. Arias	Department of Physical Oceanography, CICESE
19:00 – onwards	Margarita Evening (Plaza Villa Mexicana)		

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Tuesday, June 21

Time	Session
8:00 – 8:30	Late registration
	Plenary Session on Regional Overview <i>CICESE-Auditorio Institucional</i> <i>Chair: Hector Garcia</i>
	Elisa Obermann Executive Director, Marine Renewables Canada
	Carrie Schmaus Technology Manager, U.S. Department of Energy
	Rodolfo Silva CEMIE-Océano, Mexico
8:30 – 10:30	Rodrigo Rojas ICE, Costa Rica
	Oscar Alvarez Universidad del Norte, Colombia
	Rodrigo Alonso Universidad de la República, Uruguay
	Andrés Osorio Universidad Nacional, Colombia
	Nathalie Almonacid MERIC, Chile
	José Ugaz Peña Universidad Nacional de Ingeniería, Perú

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Tuesday, June 21

Time	Session
10:30 – 11:00	Coffee Break
	Session IV.a Waves technology and resource assessment <i>CICESE-Auditorio Institucional</i> Chair: Pedro Osuna
	Marine Energy in Baja California, México H. García
11:00 – 13:00	Dynamics of flexible spherical point absorbers M. Shabara
	Performance of a six degrees of freedom wave energy converter in the laboratory D. Galván
	Recent developments in the wave energy converter simulator open-source design tool A. Keester
	Instituto de Investigaciones Oceanológicas (IIO), UABC Department of Aerospace Engineering, Iowa State University
	Departamento de Oceanografía Física, CICESE Sandia National Laboratories

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Tuesday, June 21

Session IV.b Ocean and tidal currents technology and resource assessment
Auditorio Pedro Ripa, División de Oceanología. Chair: Tattiana Hernández

11:00 – 13:00

Characterisation of blade loading on a model scale HATT due to profiled flows and turbulence

M. Allmark

Cardiff Marine Energy Research Group,
Cardiff University

Performance analysis of horizontal axis turbine used for low flow velocity sites

C.Johnstone

Strathclyde University

Performance experiments to assess a vertical axis helical turbine power output

G. Juárez

Instituto de Ingeniería,
Universidad Nacional Autónoma de México

Application of the IEC technical specification for tidal energy resource characterization

Z. Yang

Costal Sciences Division, Pacific Northwest National Laboratory, WA

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Tuesday, June 21

13:00 – 14:00	Lunch Salón de Usos Múltiples SUM		
	Session V.a Waves technology and resource assessment CICESE-Auditorio Institucional. Chair: Bernardo Esquivel - Trava		
	Wave energy research in Uruguay supporting a pre-feasibility analysis of a desalination plant	R. Alonso	Universidad de la República, Uruguay
14:00 – 16:00	Planning guide for the pre-feasibility stage and case study of a wave energy project in Ensenada, Baja California.	M. F. Loaiza	CEMIE-Océano A.C.
	Techno-economic feasibility of marine ecoparks powered by wave energy: A case study at Baja California	E. N. Gorr-Pozzi	Instituto de Investigaciones Oceanológicas, UABC

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Tuesday, June 21

Session V.b Offshore wind technology and resource assessment
Auditorio Pedro Ripa, División de Oceanología. Chair:Dernis Mediavilla

14:00 – 16:00

Characterization of offshore wind potential in the Yucatan Peninsula

E. Garcia

Laboratorio de Ingeniería y Procesos Costeros, INGEN

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Tuesday, June 21

16:00 – 16:30	Coffee Break and Networking		
	Session VI.a Waves technology and resource assessment <i>CICESE-Auditorio Institucional</i> <i>Chair: Diego Galvan Pozos</i>		
16:30 – 18:00	Wave power in Mexican water: A numerical estimate using high spatial resolution	G. Barrera	Departamento de Oceanografía Física, CICESE
	Physical simulation of a wave energy concentrating lens	S. G. Torres	Universidad Autónoma de Campeche
	Design of a point-absorber wave energy converter to use in a laboratory wave flume	P. Muñoz Cuevas	Centro de Investigación y de Estudios Avanzados (CINVESTAV)- Unidad Guadalajara
19:00 – 23:30	Dinner at El Mirador (Buses departing from CICESE)		

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Wednesday, June 22

Time	Session		
9:30 – 10:30	Plenary Session: Round Table on Social, Environmental, and Economic Issues CICESE-Auditorio Institucional Chair: Dana Morin With participation of ECA-LNG,		
	Bruce Cameron	envigour	
	Mario López	ECA LNG	
	Elisa Obermann	Marine Renewables Canada	
10:30 – 11:00	Coffee Break		
11:00 – 12:00	Session VII.a Marine energy in Pan-America: Challenges and next steps CICESE-Auditorio Institucional Chair: Oscar Álvarez		
	On the Development of Wave Energy Converters: Some Challenges Associated with Low to Moderate Wave Power Conditions	F. J. Ocampo-Torres	CEMIE-Océano A.C
	POES: United for the development of ocean energy in Pan-America	S. García	Universidad de El Salvador
	From Pan America to INORE	R. Rojas	INORE
12:00 – 13:00	Posters and Networking Gym		

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Wednesday, June 22

13:00 – 14:00	Lunch <i>Salón de Usos Múltiples SUM</i>
14:00 – 16:00	Closing Plenary Session The future of PAMEC Closing Panel: Dialogue on Value of PAMEC <i>CICESE-Auditorio Institucional Chair: Francisco Ocampo Torres</i> PAMEC.Energy Association board members

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Posters*

Gym

M. Verduzco Zapata	Wave focalization for wave energy extraction using a submerged plate	Universidad de Colima
A. Sedeño Gomez	Analysis of wave power in Baja California.	Oceanological Research Institute (IIO), UABC
M. Arredond o Gámez	Offshore Wind Energy assessment for the Baja California Peninsula, Mexico.	Instituto de Investigaciones Oceanológicas, UABC
C. Molina Cárdenas	Growth and photosynthetic activity of 16 microalgae strains isolated from Baja California, México for biofuel production	CICESE
E. Santiago Ojeda	Wave energy assessment in coastal site of Baja California Through in-situ measurements	Instituto de Investigaciones Oceanológicas, UABC
H. García Nava	Wave focusing with submerged structures	Instituto de Investigaciones Oceanológicas, UABC

*A0-Portrait

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Posters*

Gym

F. Castro-Ochoa	Effect of nitrogen and irradiance on the growth, proximate composition and fatty acid profile of <i>Monoraphidium contortum</i> for biofuels production	CICESE
A. Mendoza	Light irradiance affects the lipids content of <i>Amphidinium carterae</i> for biofuel production	CICESE
M. Ortiz	Conceptualization of the design of a RED plant for saline gradient energy production	Instituto de Ingeniería, UNAM
G. Rivera	DPSIR for the analysis of the incorporation of marine energy in the energy matrix of La Paz, Baja California Sur	Instituto de ingeniería, UNAM
J. Florido	On the development of wave energy converters: some challenges associated with low to moderate wave power conditions	CEMIE-Océano A.C
D. Camacho	Dynamic of a floating offshore wind platform in the gulf of Tehuantepec	Instituto de Ingeniería, UNAM
P. Flores	A framework for the probabilistic environmental impact assessment of marine renewable energy power plants	Instituto de Ingeniería, UNAM

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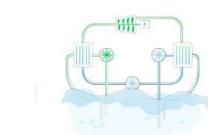
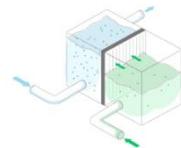
CONACYT



CEMIE-Océano
Asociación Civil

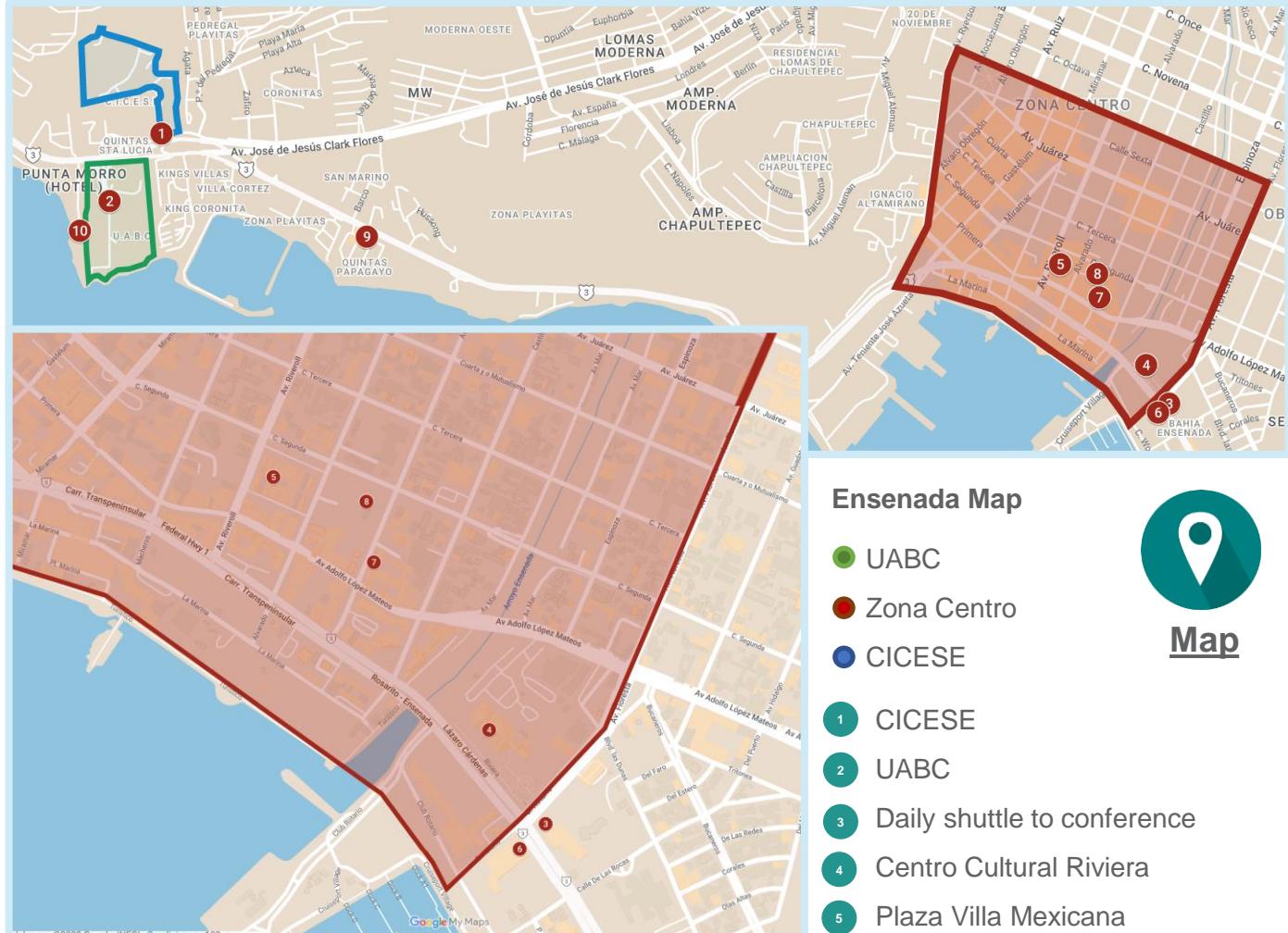


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Ensenada, Mexico



Ensenada Map



Map

● UABC

● Zona Centro

● CICESE

1 CICESE

2 UABC

3 Daily shuttle to conference

4 Centro Cultural Riviera

5 Plaza Villa Mexicana

6 Hotel Corona

7 Posada del Rey Sol

8 Holiday Inn Express

9 Hotel Lucerna

10 Hotel Punta Morro

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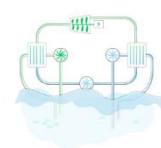
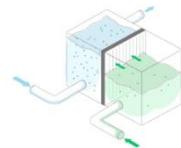


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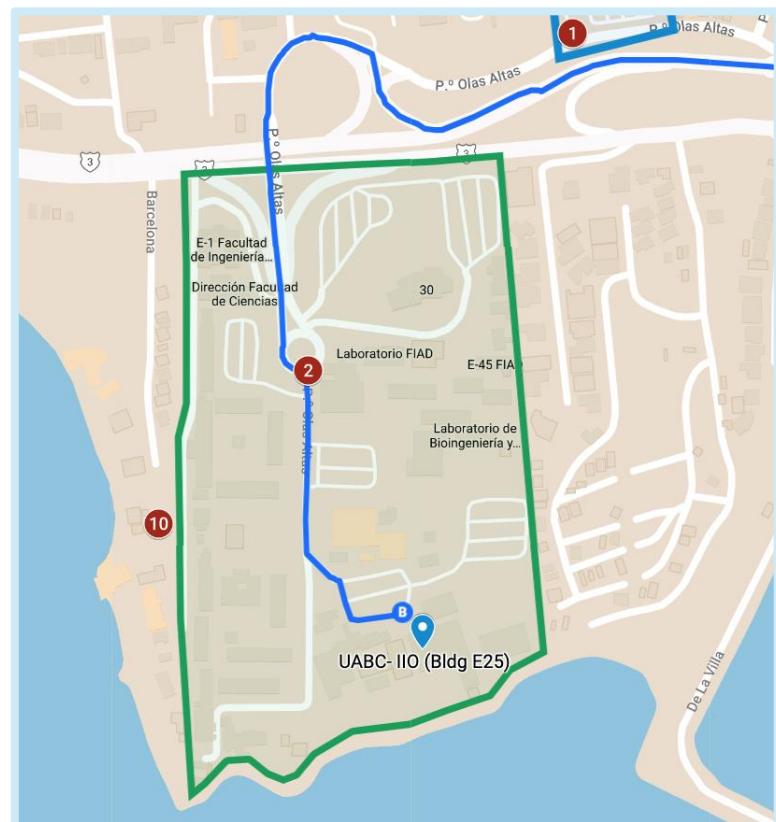


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📍 UABC- IIO (Bldg E25)



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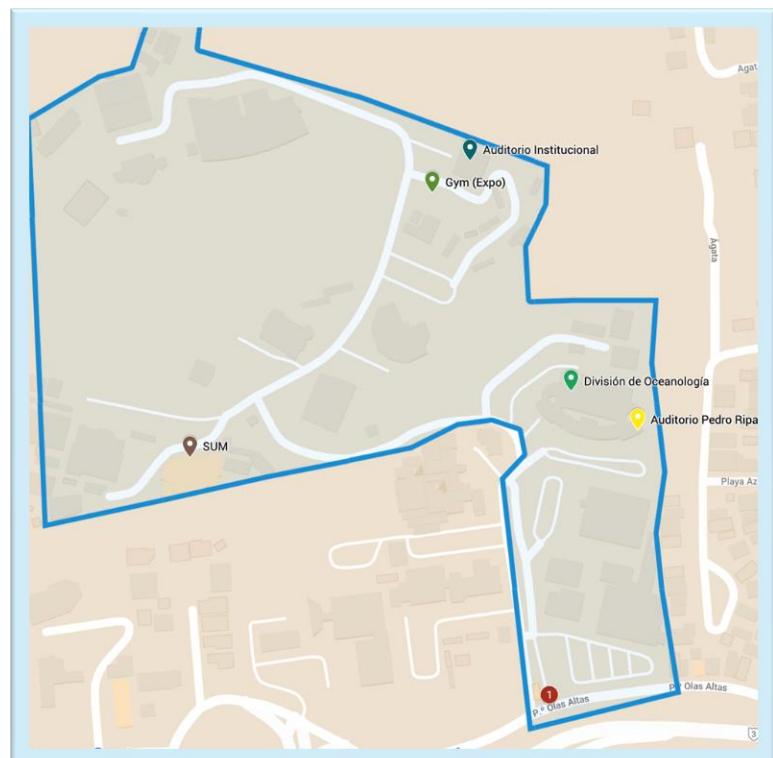
Pan American Marine Energy Conference
Ensenada, Mexico



- Auditorio Institucional
- Auditorio Pedro Ripa
- División Oceanología
- Gym (Expo) and Posters
- SUM (Lunch)



Map



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