



THE PAN-AMERICAN INSTITUTE OF NAVAL ENGINEERING

VIII CONGRESS OF THE
PAN-AMERICAN INSTITUTE
OF NAVAL ENGINEERING



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September 12-17, 1983

PROCEEDINGS



VIII CONGRESS — PAN-AMERICAN INSTITUTE OF NAVAL ENGINEERING

September 11-17, 1983 • Washington, D.C.

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BRIEF DESCRIPTION

The Pan American Naval Engineering Institute, also denominated IPEN, is a nonprofit institution to promote progress in Naval Architecture and Marine Engineering, and water transportation in the Americas.

The membership of IPEN include the following categories:

- Individual members. Engineers and technicians engaged in maritime activities.
- Supporting members. Shipyards, shipping lines, and other industries related to shipbuilding.
- Patronal members. Pan American navies.
- National members. Naval architecture and marine engineering, and related technical societies.

The IPEN headquarters and the Office of the Executive Secretary are located in Rio de Janeiro. The latter coordinates the activities of the Institute's Directors and those of other related organizations. IPEN is represented in each country by a Director.

Every two years the General Assembly elects new members of the Board of Directors and of the Advisory Council, at the Pan American Congress of Naval Engineering and Maritime Transportation held in the country chosen by the previous Assembly.

IPEN funds come from annual membership dues, according to the following rates:

Patronal Members	US\$ 1,000.00
Supporting Members	US\$ 200.00
Individual Members	US\$ 20.00

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One World Trade Center — Suite 1369
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IPEN BASIC ACTIVITIES

1. Working programs in specific activities of teaching and naval standardization, which are held in each member-country through sub-commissions entrusted with their regular functioning. Sub-commissions of both areas exchange information and can program events of direct interest, being supported by the Directory.

In these events are included the programming of short period courses, specially designed for members of the Institute and administered by specialists of reknown capacity.

These courses aim at the contact and systematic updating of members in subjects of direct interest, for their professional enhancement.

2. The systematic and permanent dissemination of technical material among National Members in another task of IPEN's Office of the Executive Secretary. This material includes mainly technical papers or magazines edited by the National Members as a means of allowing Individual Members to keep abreast of the technical literature of other Pan American countries. In addition to its own technical literature, edited with the collaboration of its members, IPEN will edit papers selected at engineering congresses sponsored by the National Members.

By means of this dissemination, technical literature will reach all the members rather than only those representing a particular country.

3. A program of training in Pan American as well as overseas shipyards, with the collaboration of Supporting Members for the practice in the Americas. The industrial training of engineers has the purpose of direct technology transfer, of professional upgrading, and of complementing the theoretical instruction in the Naval Architecture and Marine Engineering courses.

These training periods are very useful, since the program participants have an opportunity to become acquainted with the shipyard facilities.

By means of agreements with universities, IPEN also sponsors scholarships for engineers or students for regular degree, summer, or postgraduate courses. These courses are complemented by visits to shipyards and related industries.

4. The periodic holding of a Pan American Congress for Naval Engineering and Maritime Transportation constitutes IPEN principal objective. The Congress allows the rejoining of members to discuss specific problems, to exchange valuable information, and to experience a really desirable Pan American confraternization.

It is a unique opportunity to establish contacts with leading members of the maritime community and to develop new professional and business ties, in addition to becoming acquainted with the shipbuilding industry of the host country. The 7th IPEN Congress was held in Chile, in October 1981.



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