

# History of the IEEE in Latin America: **100 Years of Electrical Engineering**

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Past Director Region 9  
IEEE History Conference  
Philadelphia, August 2009



## Outline of the Presentation

- Before the Formation of the IEEE
- Growth of Region 9 Latin America
- Directors
- Publications
- Conferences
- Awards and Recognitions

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## Early Sections: AIEE

- **1910** in Mexico
  - H.S. Foley and J.W. Hale form a group of AIEE Members interested in local activities and forming a Section. World War I interrupts the process.
- **1922 in Mexico City:**
  - Section approved June 29
  - **G. H. Paget** first Chair
- **1930** AIEE President H. B. Smith visits Mexico (D. E. Arias Mexico Section chair)
- **1948** AIEE Annual Meeting in Mexico, (O. E. Enriquez, Mexico Section chair)
- **1932** On Dec, 6th the AIEE approves the formation of a Student Branch in the University of Puerto Rico at Mayaguez. Always active, this is the oldest Student Branch in the Region

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## Early Sections: IRE (1)

- **1939** in Buenos Aires (Argentina)
  - May 2: 34 IRE Members decide to form an IRE Section: Meetings and paperwork
- **1939 in Buenos Aires:**
  - Section approved October 4
  - **Adolfo Cosentino** first Chair
  - First IRE Section outside North America
- **1960** University of Buenos Aires, First IRE Student Branch (#193) outside North America

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## Early Sections: IRE (2)

- **1956** in Rio de Janeiro (Brazil)
  - Formed August 22
  - First Chair Walter Heiniger
- **1958** in Bogota (Colombia)
  - Formed January 7
- **1961** in Santiago (Chile):
  - Julio Del Rio First Chair
  - Formed January, 3

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## Formation of the Region 9

- The **Region 9 Latin America** was approved by the IEEE, effective January 1st, 1967
- The territory included all the Americas “excepting Canada and the United States” : from Mexico to Tierra de Fuego including Puerto Rico and the Caribbean
- Originally 4 active Sections in **Mexico, Argentina, Rio de Janeiro and Chile**. 2 more were being formed in Sao Paulo and Venezuela; Colombia was in re-activation.
- First Regional Director: **Guillermo Andrews** (Argentine); Vice-Director and Treasurer Francisco Hawley (Mexico); Secretary Rainer Plugovel (Chile); Student Activities Alberto Rodriguez (Venezuela), Editor of Electrolatina Eric Wallsten (Mexico)
- First Regional Meeting in Buenos Aires in 1967. Since then every year, rotating in different countries.

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# Some of the First Directors

## Argentina



Guillermo Juan Andrews

## Mexico



Francisco Hawley


## Brazil



Jose R. Costa de Lacerda

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**THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.**  
 REGION 9

|   |   |
|---|---|
| <p><b>IEEE ELECTROLATINA</b><br/>Comité Editorial</p> <p>Editor<br/>Erik Wallsten</p> <p>Editores Asociados</p> <ul style="list-style-type: none"> <li>México           <ul style="list-style-type: none"> <li>Bruno de Vecchi</li> <li>Alfredo Romero Ferrer</li> <li>Daniel Barrios Morales</li> </ul> </li> <li>Argentina           <ul style="list-style-type: none"> <li>Juan del Giorgio</li> </ul> </li> <li>Brasil           <ul style="list-style-type: none"> <li>J. R. Costa de Lacerda</li> </ul> </li> <li>Chile           <ul style="list-style-type: none"> <li>Rainer J. Puvogel</li> </ul> </li> <li>Colombia           <ul style="list-style-type: none"> <li>Alberto Ospina</li> </ul> </li> <li>Estados Unidos           <ul style="list-style-type: none"> <li>Alexander B. Bereskin</li> </ul> </li> <li>Perú           <ul style="list-style-type: none"> <li>César A. Pera</li> </ul> </li> <li>Venezuela           <ul style="list-style-type: none"> <li>Hernán Pérez Belisario</li> </ul> </li> </ul> <p>Gerente<br/>Ignacio Avilez Espejel</p> <p>Asesores<br/>F. K. Willenbrock<br/>Presidente Comité Publicaciones IEEE</p> | <p>Elwood K. Gannett<br/>Director, Servicios Editoriales<br/>Ralph H. Flynn<br/>Director, Servicios Publicitarios IEEE</p> <p style="text-align: center;"><b>Mesa Directiva 1967</b></p> <p>Director<br/>Guillermo J. Andrews, Buenos Aires</p> <p>Subdirector/tesorero<br/>Francisco Hawley, México</p> <p>Secretario<br/>Rainer J. Puvogel, Santiago</p> <p>Coordinador actividades estudiantiles<br/>Alberto Rodríguez M., Caracas</p> <p>Editor "ELECTROLATINA"<br/>Erik Wallsten, México</p> <p>Presidentes de Sección</p> <ul style="list-style-type: none"> <li>Buenos Aires, Juan del Giorgio</li> <li>São Paulo, Charles Lahmann</li> <li>Santiago, Humberto Olavarria</li> <li>Rio de Janeiro, João A. Wiltgen</li> <li>México, Gotzon A. de Anúzita</li> <li>Caracas, Roberto Chang Mota</li> </ul> <p>Coordinadores de Secciones en formación</p> <ul style="list-style-type: none"> <li>Bogotá, Fernando Garbrecht</li> <li>Lima, César A. Pera</li> </ul> |
|---|---|

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## The Regional Directors

|         |  |         |   |
|---------|--|---------|---|
| 1966/67 | <b>Guillermo Andrews</b> † (Argentina)       | 1989/91 | <b>Luis T. Gandia</b><br>(Puerto Rico)            |
| 1968/69 | <b>Francisco Hawley</b> † (Mexico)           | 1992/93 | <b>Eduardo Arriola</b><br>(Mexico)                |
| 1970/71 | <b>Carlos Lohman</b> (Brazil)                | 1994/95 | <b>Hugo Fernandez Versteegen</b> †<br>(Argentina) |
| 1972/73 | <b>Ernesto Obregon</b> (Colombia)            | 1996/97 | <b>Antonio Bastos</b> (Brazil)                    |
| 1974/75 | <b>Jose R. Costa De Lacerda</b><br>(Brazil)  | 1998/99 | <b>Juan Carlos Miguez</b><br>(Uruguay)            |
| 1976/77 | <b>Luis Ruperto Jimenez</b> (Peru)           | 2000/01 | <b>Pedro Ray</b> (Puerto Rico)                    |
| 1978/79 | <b>Carlos Rivera Abrams</b><br>(Puerto Rico) | 2002/03 | <b>Hugh Rudnick</b> (Chile)                       |
| 1980/81 | <b>Oscar C. Fernandez</b><br>(Argentina)     | 2004/05 | <b>Francisco Martinez</b> (Mexico)                |
| 1982/83 | <b>Eduardo Bonzi</b> † (Chile)               | 2006/07 | <b>Luis Pilotto</b> (Brazil)                      |
| 1984/85 | <b>Ramiro Garcia Sosa</b><br>(Mexico)        | 2008/09 | <b>Enrique Alvarez</b> (Peru)                     |
| 1986/87 | <b>Sergio Fronterotta</b> (Brazil)           | 2010/11 | <b>Tania Quiel</b> (Panama)                       |
| 1988    | <b>Carlos Rodriguez</b> (Panama)             |         |   |

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## More IEEE Sections

- 1964 Puerto Rico
- 1966 South Brazil
- 1967 Venezuela
- 1967 Peru
- 1970 Central America (later divided into 5 section/countries)
- 1972 Panama
- 1974 Bahia (Brazil)
- 1976 Bolivia (later dissolved, formed again 1997)
- 1974 Ecuador
- 1975 Monterrey (Mexico)
- 1977 Brasilia (Brazil)
- 1977 Jamaica (later moved to Region 3 for language reasons)

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## Sections in Central America

- 1982 The CAPANA Council is formed by the Panama Section (1972) and the former Central America Section (1970)

Later, Sections formed in all the countries of Central America:

- 1986 Costa Rica
- 1986 El Salvador
- 1986 Guatemala
- 1987 Honduras
- 1995 Nicaragua

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## Councils in Region 9

**1970 Brazil Council** (Rio de Janeiro and Sao Paulo)  
now 5 sections with 2721 members.

**1976 Mexican Council** (Mexico and Monterrey)  
now 10 sections with 4008 members.

**1982 CAPANA Council** (Central America and Panama)  
now 6 sections with 1151 members.

**1990 Puerto Rico Council** (dissolved 1992)

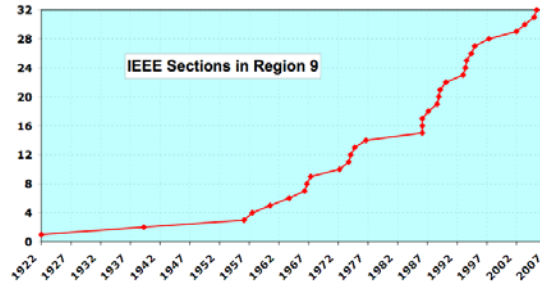
**2001 Andean Council** (Venezuela, Colombia, Ecuador, Peru, Chile and Bolivia) 5 sections with 4921 members

6 more sections with 2602 members (2 in Puerto Rico, Trinidad and Tobago, Uruguay, Chile and Argentina)

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## IEEE Entities in Region 9 (2009)

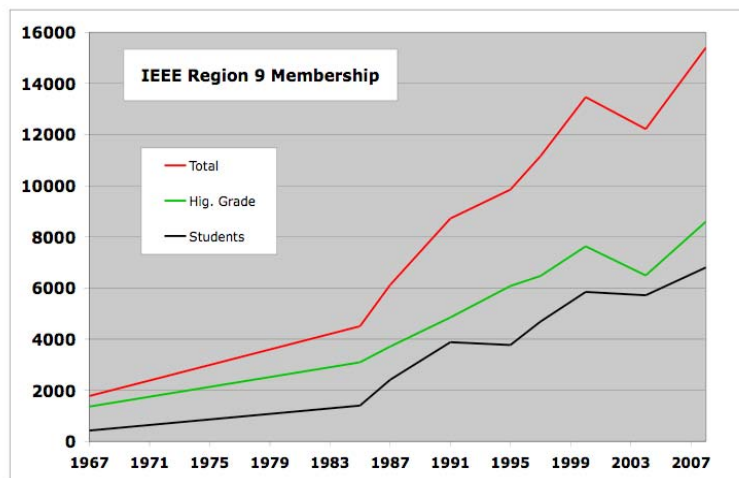


|  |                                    |
|--|------------------------------------|
| <b>32 Sections in 5 Councils</b>                     | <b>310 Student Branches</b>        |
| <b>171 Technical Chapters</b>                        | <b>164 Student Branch Chapters</b> |
| <b>27 Affinity Groups<br/>(LM, GOLD, Consultant)</b> | <b>50 Student Branch WIE</b>       |

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## IEEE Membership in Latin America



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## **Publications of Region 9 (In Spanish and/or Portuguese)**

- **ELECTROLATINA**
- **NoticIEEEro** (Regional Newsletter)
- **Revista IEEE Latinoamerica**  
(Latin America Transactions)

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## **ELECTROLATINA**

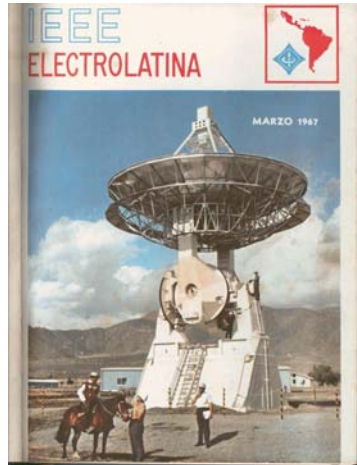
- Technical Publication in Spanish or Portuguese Language
- Edited by Erick Wallsten, from Mexico
- First Issue March 1967
- Last Issue Sept/Dec 1975

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## ELECTROLATINA: First Issue



| IEEE ELECTROLATINA  |  | VOLUMEN 1  |
|---|--|------------|
| CONTENIDO   |  | NUMERO 1   |
|   |  | MARZO 1967 |
| 7   | Editorial  |            |
| 9   | Noticias IEEE  |            |
| 13  | Antena   |            |
| 14  | BRASIL - Subestación con antenas eléctricas desde la Jiriverencia - Luis Carlos de Barros Arruda y Darcy de Araújo Prado |            |
| 20  | CHILE - Sistema de interconexión para satélites artificiales - Eduardo Diaz  |            |
| 28  | COLOMBIA - Telecomunicaciones en 1972 - Alberto Ospina   |            |
| 32  | PERU - La batalla por el desarrollo en el Perú - César A. Piza   |            |
| 34  | VENEZUELA - Plan de numeración para Venezuela  |            |
| 37  | Personalidades   |            |
| 39  | Noticias Generales   |            |
| 42  | Conoce a tu Instituto  |            |
| Nuestra portada: Estación de rastreo de satélites de la Universidad de Chile-NASA, antenna parabólica del sistema "Range and Range Rate". |  |            |

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## NoticIEEEro Regional Newsletter

- **NoticIEEEro**: Regional Newsletter sent to every member in the Region
- **1980's**: Newspaper format, sent from Brazil to each Section [Waldyr Lukato (BRA), editor ]
- **1990's** Booklet format, sent by Post to Higher Grade Members [Juan C. Miguez (UY), Marcel Keschner (UY), Marcelo Mota (BRA), Francisco Martinez (MEX) Jorge Him (PAN), successive editors]
- **2003 to 2008** .pdf format sent by e-mail [Luis Arenas (COL), editor]
- **Now** Web-only, notification sent by e-mail [Ignacio Castillo (MEX), editor ]

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# NoticIEEEero Regional Newsletter



1986-1989 Newspaper

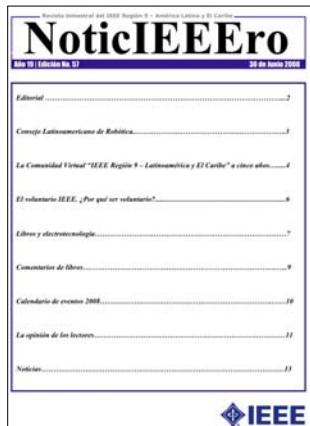


1990-2002 Booklet

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# NoticIEEEero Regional Newsletter



2003 to 2008 .PDF by e-mail



Now web only  
www.noticieero.org

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# Revista IEEE America Latina

- Revista IEEE America Latina (Latin America Transactions)
- Promoted by Director Hugh Rudnick (F, Chile)  
Edited by Jose Jardini (F, Brazil)
- Peer-reviewed, written in Spanish or Portuguese
- Web-only
- First volume appeared 2003;
- 12 issues to the present

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# Latin America Transactions



[www.ewh.ieee.org/reg/9/etrans](http://www.ewh.ieee.org/reg/9/etrans)



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## Regional Conferences (I)

- **LATINCON** (Biannual)
- First time in Sao Paulo, 1974 with attendees from various countries, notably Chilean students brought by future Director Eduardo Bonzi). Modeled on Intercon.
- Frequently followed by Regional Meeting
- Last excellent Conference in Buenos Aires, April 1988 (Marvin Minsky, Ray Dolby, etc)
- The model of Horizontal Conference proved not to be viable and was cancelled after 1994.

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## Regional Conferences (II)

- **CONCAPAN** (yearly)
- First **CONCA** (**CON**greso en **C**entral **A**merica) in 1971 in Guatemala. Every year another one in a different country.  
After the merge with Panama, named CONCAPAN
- 1981: **CONCAPAN I** in Panama
- 2009: **CONCAPAN XXIX** in Honduras
- Held in Central America and rotating among their 6 countries, including Panama.  
Very Successful model and excellent interaction among Members.

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# Regional Conferences (III)

- **ANDESCON** biannual  
In the countries of the Andean Countries.  
First time in Caracas, (Venezuela) 1999  
2004 Colombia, 2006 Ecuador, 2008 Peru
- **LATINCOM** (yearly)  
co-sponsored by the Communications Society
- **Transmission and Distribution (T&D LA)** biannual  
co-sponsored by the Power and Energy Society  
First time in Sao Paulo (Brazil), 2002 and 2004; 2006  
Caracas, 2008 Bogota and 2010 back to Sao Paulo.

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## T&D LA 2008 - LATINCOM 2009



### 2008 IEEE PES TRANSMISSION AND DISTRIBUTION CONFERENCE AND EXPOSITION

#### "Regional Integration with Reliable and Efficient Power Systems"

Bogota, Colombia - August 13<sup>th</sup> to 15<sup>th</sup>, 2008

The Transmission and Distribution Conference and Exposition - Latin America is a technical event and industrial exposition about the power system topics including presentations of designed scientific reports, and technical papers (oral and poster). In addition, the T&D Latin America presents up-to-date tutorial courses and an industrial exposition. The T&D Latin America has been held in Sao Paulo, Brazil (2002 and 2004) and in Caracas, Venezuela (2006), with a massive participation of professionals and a high technical level, contributing to high reputation as the transaction space of choice for the industry and the academy in the area of power systems. For the 2008 version the IEEE PES (Power Engineering Society) worldwide has designated by the IEEE Councilor Section for the organization of this important event.

#### Technical Topics

Papers are encouraged, but not restricted, to the following areas:

- Power Reliability, Quality & Safety
- Energy Resources
- New Technologies
- Improved Measurement and Control Techniques
- New Market Structures
- Planning, Interconnection and Operation of Transmission and Distribution Systems

#### Important Dates

Extended abstract submission (No more than 500 words long in English, PDF format) February 18<sup>th</sup>, 2007 NEW  
Abstract acceptance notification March 10<sup>th</sup>, 2008  
Full paper submission (color version) until April 18, 2008  
Final paper submission (final version) until May 9, 2008

Full Papers must be submitted according to the IEEE PES Author's Kit available from [www.ieee.org/2007/td/2008](http://www.ieee.org/2007/td/2008)

#### Abstract Submission

Format: PDF - Free Style  
The abstract must be sent to: [td2008@ieeepes.org](mailto:td2008@ieeepes.org)  
Title: Author's name  
Author's address  
Author of contact  
Main Topic and Specific Subject (see List)



August 13<sup>th</sup> - 15<sup>th</sup>, 2008  
Bogotá, Colombia  
[www.ieee.org/2007/td/2008](http://www.ieee.org/2007/td/2008)  
e-mail: [td2008@ieeepes.org](mailto:td2008@ieeepes.org)



### CALL FOR PAPERS

The IEEE Latin-American Conference on Communications 2009 (LATINCOM2009) and the IEEE Colombian Communications Conference 2009 (COLCOM2009) are being organized and co-sponsored by the IEEE Communications Society (IEEE-CS) and the IEEE Latin American Region. The main focus of LATINCOM 2009 will be "Digital Cities" and new communications and related areas can support the launch.

The organization committee invites submissions of original technical papers in English for presentation in the conference either by oral or by a poster presentation and their further publication in the conference proceedings.

Accepted papers will be uploaded onto IEEE Xplore and expanded versions of selected papers will be published in the IEEE Latin American Transactions.

#### TOPICS

Abstracts of interest for oral or poster sessions by the following subcommittees:

- **COMMUNICATIONS THEORY & NETWORKS**
  - Communication Theory & Networks
  - Network Architecture & Design
  - Network Security & Protection
  - Network Management
- **COMMUNICATIONS SYSTEMS, NETWORKS, AND SERVICES**
  - Communication Systems, Networks, and Services
  - Network Architecture & Design
  - Network Security & Protection
  - Network Management
- **WIRELESS COMMUNICATIONS**
  - Wireless Communications
  - Wireless Networks
  - Wireless Systems, Networks and Services
  - Wireless Security & Protection
  - Wireless Management
- **WIRELESS NETWORKS & SERVICES**
  - Wireless Networks
  - Wireless Systems, Networks and Services
  - Wireless Security & Protection
  - Wireless Management

#### ACCEPTANCE DATES

April 16, 2009 Final abstract deadline  
July 10<sup>th</sup>, 2009 Notification of acceptance  
August 18, 2009 Final author manuscript submission deadline

#### PAPER SUBMISSION

The Papers must be submitted in digital version in pdf format by the [IEEE PES Author's Kit](mailto:td2008@ieeepes.org). Papers must be prepared in accordance with IEEE submission format for conference. Only the 80 pages are allowed for each paper. The illustrations and the references are included in the page count.

#### REVIEW PROCESS

Illustrations are invited to submit an abstract to the student authors, including their ongoing research. Students of selected abstract will have the opportunity to present a paper and interact with LATINCOM2009 participants. Abstract should be sent to: [td2008@ieeepes.org](mailto:td2008@ieeepes.org) in the same format.

#### IEEE PES AND IEEE CS PUBLISHERS

The Development and Business Forum is intended to disseminate ideas on technological advances. Abstracts should be sent to: [td2008@ieeepes.org](mailto:td2008@ieeepes.org) in the same format.



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## Some Student Conferences

- **CONESCAPAN** in Central America (28 years)
- **INGELECTRA** in Chile
- **INTERCON** in Peru
- **Regional Student Branches Meetings:**  
First in Lima, 1997; Second in Rosario (Argentina) 1999, third in Sao Paulo 2001; Since then held every year

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## IEEE Service Awards



### *Haraden Pratt Award*

**2006 Antonio Bastos** (Salvador, Brazil)

“For leadership and distinguished service in sustaining and extending IEEE’s global recognition.”

**2007 Luis T. Gandia** (San Juan, Puerto Rico)

“For outstanding leadership in promoting technical activities at the regional level and the transnational character of the IEEE at the Board level.”

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## RAB / MGA Awards

### *William W. Middleton Distinguished Service Award*

**2002 Antonio C. Bastos, Brazil**

"For inspiring leadership and dedicated service in promoting IEEE Region, Section and Chapter activities in Region 9, and at the international level."

### *Larry K Wilson Transnational Award*

**2003 - Hugo Maria Fernandez-Versteggen, Argentina**

" For his significant contributions to making IEEE a truly global Society"

**1995 - Luis T. Gandia, Puerto Rico**

"For a full professional life dedicated to serving and stimulating others, through his example, to live and support the principles and ideals of the IEEE."

**1986 - Carlos Rivera Abrams, Puerto Rico**

"For creative accomplishments and exemplary efforts in expanding the Student, Chapter Section and Region activities in Latin America."

**1985 - Jose Valdez, Peru**

"For exceptional leadership and creativity in successfully integrating all of the RAB Objectives into the operations of the IEEE Peru Section."

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## Regional Awards

- **Ingeniero Eminente**  
Established 1974 (Aproved by IEEE BoD)
- **Voluntario Sobresaliente "Oscar Fernandez"**  
Established 1994
- **ELEKTRON (Peru)** established 2000  
Joint IEEE Award with the Asociacion Electrotecnica Peruana

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## IEEE Milestones

- **Chivilingo Hydroelectric Plant, 1897**

The 1897 430 kW Chivilingo Plant was the first hydroelectric plant in Chile and the second in South America. It represented a new key technology and a new source of electrical energy in the region. **(CHILE, October 24, 2001)**

- **Panama Canal Electrical and Control Installations, 1914**

The Panama Canal project included one of the largest and most important electrical installations in the world early in the 20th century. The use of 1022 electric motors with an installed capacity of 28,290 horsepower largely replaced the steam and water powered equipment then in common use. Reliability and safety were also engineered into the innovative electrical control system, enabling remote lock operation from a central

location. **(PANAMA, April 4, 2003)**

- **Arecibo Radiotelescope, 1963**

The Arecibo Observatory, the world's largest radiotelescope, was dedicated in 1963. Its design and implementation led to advances the areas of antenna design, signal processing, and electronic instrumentation, and in the mechanical engineering areas of antenna suspension and drive systems. **(PUERTO RICO, Nov. 2001)**

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## R9 in the IEEE Board (1)

- **Secretary of the IEEE:**

- 1987 Ramiro Garcia Sosa (Mexico)
- 1991 Hugh Rudnick (Chile)
- 1994 Luis T. Gandia (Puerto Rico)
- 1998 Antonio C. Bastos (Brazil)
- 2001/2 Hugo Fernandez Versteegen † (Argentina)
- 2006 Roberto Boisson de Marca (Brazil)

- **Treasurer:**

- 2003/4 Pedro Ray (Puerto Rico)

- **Vice President Regional Activities:**

- 1992/3 Luis T. Gandia (Puerto Rico)
- 2000 Antonio C. Bastos (Brazil)
- 2006/7 Pedro Ray (Puerto Rico)

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## R9 in the IEEE Board (2)

- **Vice President Technical Activities:**
  - 2006 Roberto Boisson de Marca (Brazil)
- **Vice President Educational Activities:**
  - 2009 Teofilo Ramos (Mexico)
- **Division Directors**
  - 1999/0 VI (EMS) Luis T. Gandia (Puerto Rico)
  - 2004/5 III (Com) Roberto Boisson de Marca (Brazil)
  - 2010/1 VII (Power) Enrique Tejera (Panama)
- **IEEE President**
  - 2010 Pedro Ray (Puerto Rico)

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## Conclusions

- Interest in the AIEE, IRE and IEEE in Latin America dates back 100 years to 1910
- The Region 9 is a growing and very much active entity, with dynamic and motivated volunteers in all the IEEE
- Only a short collection of facts has been presented
- There is much more information in the History of the Region. It needs to be documented and saved for the next generations

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## Principal Sources

- **Carlos Rodriguez** (Panama) “Historia de la Region Latinoamericana”, 1984
- **Jose Roberto Costa de Lacerda** (Brazil)
- **Manuel Rodriguez Perazza** (Puerto Rico)
- Revista ELECTROLATINA
- Proceedings of the IRE
- Notic**IEEE**ros
- Regional Meetings’ Minutes

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