

561735-ERP-1-2015-1-PT-EPPKA2-CBHE-JP



# IEEE ACTIVIDADES TÉCNICAS



#### VISIR+

EDUCATIONAL MODULES FOR ELECTRIC AND ELECTRONIC CIRCUITS THEORY AND PRACTICE FOLLOWING AN ENQUIRY-BASED TEACHING AND LEARNING METHODOLOGY SUPPORTED BY VISIR ERASMUS+

CAPACITY BUILDING IN HIGHER EDUCATION 2015

N° 561735-EPP-1-2015-1-PT-EPPKA2-CBHE-JP









- 1. IEEE
- 2. ACTIVIDADES TÉCNICAS DE LA SOCIEDAD DE EDUCACIÓN
- 3. PUBLICACIONES ABIERTAS / CURSOS ABIERTOS / MOOC







# Sociedades Profesionales



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- Tecnología y Educación Ingeniería Sistemas Abiertos, accesibilidad y compartir contenidos
- La Formación Permanente y la Actualización de Conocimientos asegura el crecimiento

La Educación en Ingeniería facilita el desarrollo e estos temas



# IEEE ItripleE IEcubo



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- IEEE es una organización profesional global
  - avance en la innovación y búsqueda de la excelencia técnica
  - beneficio mundial para la comunidad humana
- Áreas de interés
  - Sistemas de ingenieria que usan la electricidad para trabajar

El propósito básico del IEEE es impulsar la innovación tecnológica y la excelencia para el beneficio de la humanidad







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• Más de 430.000 – aprox. 50% U.S.A. – 50% Empresas Advancing Technology for Humanity

- Una organización respetada por sus estándares
  - 1.500 estándares
- Uno de los mayores organizadores de conferencias
  - 1.000 conferencias 76 países (400,000 participantes) / año
- Uno de las mayores editoriales de literatura científica
  - 170 Transactions, Journals & Magazines
  - 1/3 de la literatura mundial en las áreas de interés
  - 3,5 millones de documentos IEEE Xplore (8 millones descargas/mes









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• 1912: Institute of Radio Engineers

• 1963: AIEE and IRE merge to form IEEE – The Institute of Electrical and Electronics Engineers (IEEE):

2009

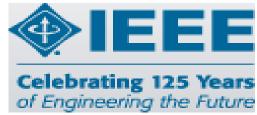
• 150.000 miembros & 93% U.S.A.

• Ahora: basada en voluntarios

• Más de 400,000 miembros (con 120,000 estudiantes)

• 160 países &y 333 Secciones en 10 Regiones Geográficas



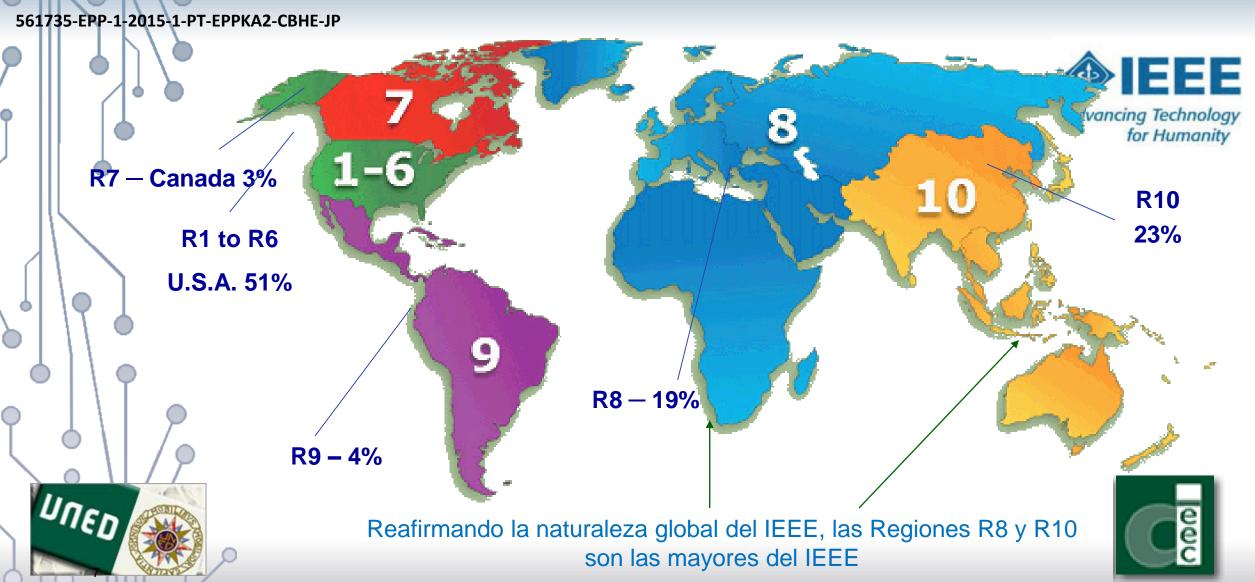




















- Ejemplos: Sociedad de Comunicaciones, Sociedad de Informática, Sociedad de Potencia y Energía, Sociedad de Educación
- 2.231 Capítulos que integran los miembros locales con intereses tecnicos similares
  - Ejemplos: Capítulos de Educación de España, Portugal, Países del Golfo, Países Nórdicos, etc.
- 2.516 Ramas de Estudiantes en 80 países
  - 790 Capítulos de Ramas de Estudiantes





# Organización del IEEE







#### **MEMBERS**



#### **Board of Directors**

**Assembly** 

**PSPB** 

**IEEE-USA** 

**Educational Act.** 

Standards Assoc.

MGA

**Technical Act.** 

**Executive Comm.** 

**Regions & Sections** 

Societies & Tech.
Councils

Staff & Society Executive
Directors







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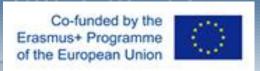




- Un foro dedicado a
  - La educación continua
  - Las redes entre iguales
  - La creación de oportunidades de voluntariado
  - El reconocimiento profesional

a lo largo de todo el mundo (presencia global con perspectiva glocal)







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#### Visión



La Sociedad de Educación del IEEE pretende ser líder global en educación en la ingeniería

#### Misión

La Sociedad de Educación del IEEE es una organización internacional que promueve el avance y la diseminación del estado del arte y los recursos relacionados con los campos de interés de la Sociedad y proporciona el desarrollo de oportunidades académicas y profesionales en la industria y el gobierno







- Mayoría en U.S.A.
- 6% de la Region 8 (Europa, Oriente Próximo y África)
- 5% de la Region 9 (Latin America)
- En 1997
  - Majoría de miembros fuera de U.S.A.
- Hoy
  - Sobre 3.400 miembros
  - 60% fuera de U.S.A.
  - 30% en la Region 8 (Europa, Oriente Próximo y África)
  - Primer Presidente de fuera de U.S.A. (pasado de España (2013-2014) y siguiente de Brasil)













- TISP (Teacher in Service Program)
- Tryengineering.org
- EPICS (Engineering Projects in Community Service)
- New Initiative Programs
- Chapter initiative support and Awards
- Students branch and mentoring support
- HKN honor student society



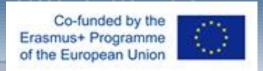








- President / President-Elect / Past Presidents Jr & String
- Secretary / Treasurer
- 4 VicePresidents (EA&A / MGA / Conferences / Publications)
- Members at large (12)
- Relations with TAB / EAB / MGA / Standards
- Relations with Regions / Chapters / Student Branches
- Relations with Division VI





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#### Publicaciones Técnicas





Cubre todos los campos de interés

Fundada: 1958

# IEEE-RITA

Focalizada en Latin America, Portugal, España

Fundada: 2006

IEEE TRANSACTIONS ON LEARNING TECHNOLOGIES
Por Estudiantes y Para Estudiantes: 2006

Focalizada en Tecnologías del Aprendizaje

Fundada: 2008

de Estudiantes







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- Visión: Ser el primer foro de profesionales en informática, ingeniería de ducación en tecnología para aprender las mejores prácticas y las innovaciones permitiendo una enseñanza y aprendizaje mejor compartiendo ideas e impulsando la comunidad
- Historia: Desde 1979 formado profesores con tecnología y educación

2014 Frontiers in Education Conference

OCTOBER 22-25, 2014
Opening Doors to
Innovation and
Internationalization in
Engineering Education
Melia Castilla Hotel & Convention Cen



October 12-15, 2016
Bayfront Convention Center
Erie, PA





Frontiers in Education Clearing House

http://ww.fie-conference.org/





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- Crecimiento a 700 participantes
- Cuatro dias de workshops y presentaciones de ponencias
- Sobre 450 ponencias revisadas por pares (900 recibidas y revisadas)
- Desayunos y comidas incluidas en el registro
- Registro aproximado de US \$500 para miembros ASEE/IEEE
- FIE2014: Madrid, España (Octubre 22-25, 2014)
- Primer año fuera de U.S.A. en los últimos 24 años
- FIE2016: Erie, PA, U.S.A. (Octubre 12-15, 2016)

http://www.fie-conference.org/













- Historia: Cuarto año como foro en Asia y Oceania
- 200 participantes
- Cuatro días con workshops y ponencias







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- Historia: Sexto año como foro en Europa, Oriente Próximo y Africa
- 300 participantes
- Cuatro días con workshops y ponencias







http://www.educon-conference.org/ EDUCON 2017: Atenas, Grecia (25-28 Abril, 2017)







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#### **IEEE EDUNINE 2017**

Engineering Education – Balancing Generalist and Specialist Formation in Technological Carriers: a Current Challenge Santos, Brazil





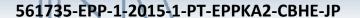
• EDUNINE 2017: Santos, Brasil (19-22 Marzo, 2017)

http://edunine-conference.org/









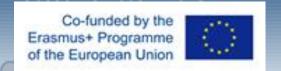


Co-Patrocinador Técnico de conferencias

Advancing Technology for Humanity

- TAEE (España)
- FNDTI (España)
- CISPEE (Portugal)
- Exp.at (Portugal)
- MITE (India)
- IMCL (todo el mundo)
- ICL (todo el mundo)
- REV (todo el mundo)







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#### **Contenidos: Recursos Educativos en Abierto**



http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6937240



IEEE TRANSACTIONS ON EDUCATION, VOL. 57, NO. 4, NOVEMBER 2014

#### Guest Editorial: Open Educational Resources in Engineering Education: Various Perspectives Opening the Education of Engineers

Abstract—Open Educational Resources (OER) provide a strategic opportunity to improve the quality of education as well as facilitate policy dialog, knowledge sharing, and capacity building. One of the fundamental concepts of OER is "the ability to freely adapt and reuse existing pieces of knowledge." Reuse of educational resources by both individuals and organizations may have significant creative and economic benefit for the educational

reputation, are in a good position to further develop online teaching and testing, learning communities, and certification. Those that produce high-quality knowledge, teaching, and students have little to fear, and much to gain, from OER. This movement has challenged the traditional value chain by employing new methods to deliver high-quality educational

- Reusabilidad de recursos
- Acceso en Abierto y distribuido
- Aspetos sociales de información y publicaciones







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#### Contenidos en Abierto: Recursos Educativos 🀠 IEEE en Abierto

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http://carbono.utpl.edu.ec:8080/ieeedataviz/

verification

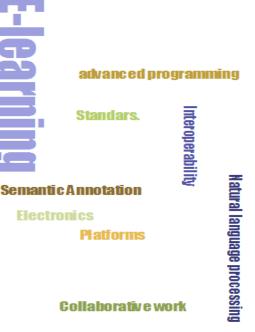
- Desarrollo como Demo
- Palabras clave y relaciones

Metadata extraction and generation

Biometric

moodle







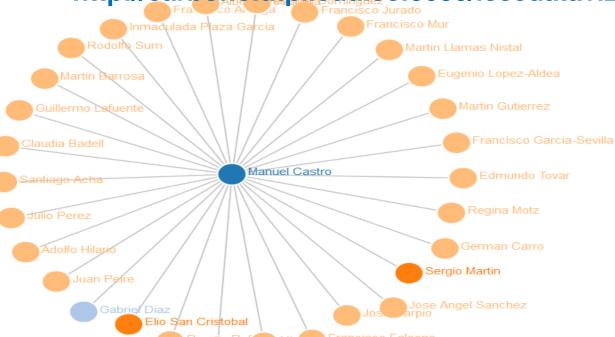




Contenidos en Abierto: Recursos Educativos 🌑 IEEE en Abierto

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- Desarrollo como Demo
- Palabras clave y relaciones
- Autoría







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# Contenidos en Abierto: Recursos Educativos en Abierto



**Publications** 

http://carbono.utpl.edu.ec:8080/ieeedataviz/

 IEEE Revista Iberoamericana de Tecnologias del Aprendizaje (IEEE-RITA before December 2012)

Journals, 155 Link |

#### **Articles**

 Design of an Advanced Programming Course through Project-Based Learning: A Geographical Application.

MAY 2008, 31-38

DOI: null

Links: Public | Other |

 Technological resources for distance learning in Spain: A comparison and implementation.

FEB 2009, 27-36

DOI: nu

Links: Public | Other |

Desarrollo como Demo

- Palabras clave y relaciones
- Autoría
- Artículos (IEEE-RITA demo 2012)



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Santiago del Estero 12-16/Septiembre/2016 - 25





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#### **Open Access: IEEE Access**



http://www.ieee.org/publications\_standards/publications/ieee\_access/index.htm



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#### **IEEE Access**

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### The journal for rapid open access publishing

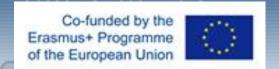
What is IEEE Access

#### On this Page:

- Benefits of publishing
- Author testimonial videos
- ▶ New Special Sections in IEEE Access

IEEE Access is an award-winning, multidisciplinary, all-electronic archival journal continuously presenting the results of original research or development across all of IEEE's fields of interest. Supported by author publication fees, its hallmarks are a rapid peer-review and publication process with open access to all readers. IEEE Access received the 2015 PROSE Award for Best New Journal in STM (science, technology, and medicine) and one of its articles was awarded the 2015 Donald G. Fink Prized Paper Award.







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#### Benefits of publishing



#### Why publish here?

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- · Multimedia integration and commenting
- · Usage and citation data

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- Advantage of being published by an IEEE journal
- Vast global outreach to millions of users through the IEEE Xplore digital library
- Convenient author-pays publishing model, with an article processing charge of US\$1,750 per article



#### Topics covered

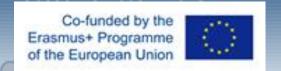
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#### Abierto y Gratis

- Y ADEMÁS:
  - Publicación rápida
  - Integración Multimedia
  - Debates Postpublicación





### Entorno Colaborativo

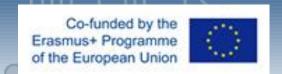






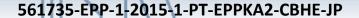






# Entorno Colaborativo





#### Nuevos métodos de colaboración





- ★ Home
- 11 Professional Communities
- 49 Library Documents
- 1 Research Group
- 122 People in your Network

- Abierto en IEEE
- Un sitio común de contacto
- Comunidad/es
- Grupos de investigación
- ▶ Personas !!!!!





### Formación



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#### IEEE Librería eLearning y CLE



https://www.ieee.org/education\_careers/education/elearning\_library/

https://ieee-elearning.org/CLE/

#### Benefits of IEEE eLearning Library

- Online tutorials enable you to get up to speed quickly on emerging technologies and trends.
- Save time and money with content delivered when you need it—no travel required.
- Earn Continuing Education Units (CEUs) and Professional Development Hours (PDHs) for maintaining professional certifications and career development.
- · Learn from the leading experts in the field.
- Increase your overall knowledge beyond your specific discipline to take advantage of technology convergence opportunities in the marketplace.
- Find dynamic interface with audio, animation, engaging graphics, assessment, glossary, and references.
- Tutorial topics span a wide array of technologies including: Aerospace; Bioengineering; Communication, Networking & Broadcasting; Components, Circuits, Devices & Systems; Computing; Engineering Profession; General Topics for Engineers; Photonics & Electro-Optics; Power, Energy & Industry Applications; Robotics & Control Systems; and Signal Processing & Analysis.

- ▶ IEEE Center for Leadership Excellence
- Cursos Profesionales
- IEEE entrenamiento de voluntarios
- Librería eLearnin

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# Formación



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edX

#### **IEEEx MOOCs**

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Browse free online courses in a variety of subjects. IEEE courses found below can be audited free or students can choose to receive a verified certificate for a small fee. Select a course to learn more.









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- Arranque en 2015
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