

Joint ITU-IEICE-IEEE Workshop on Education about Standardization

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IEEE Standards Education Initiative

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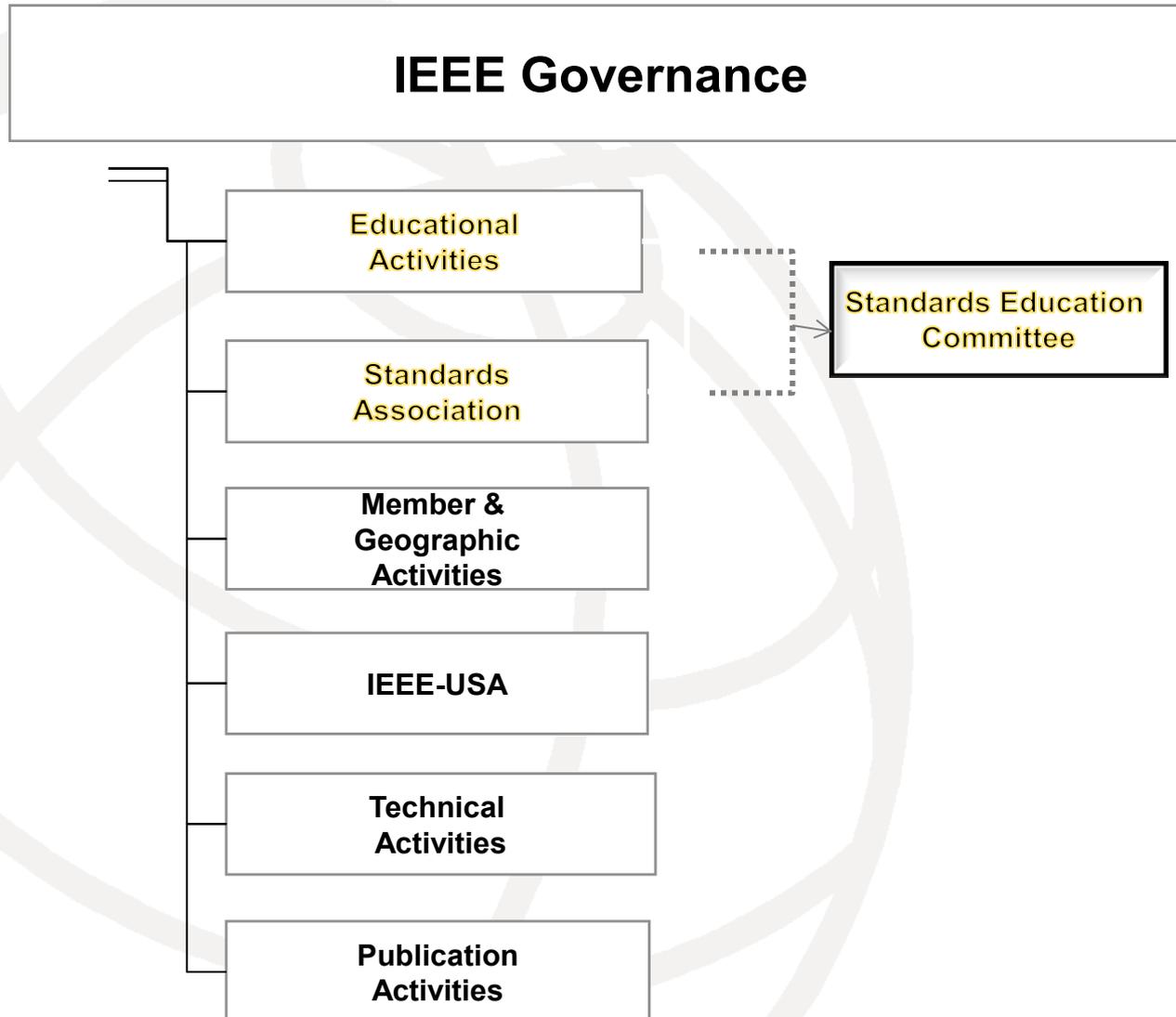
The IEEE

- 415,000 members
- Headquartered in New Jersey, but majority of members outside US
- 45 technical societies and councils
- 148 journals and transactions
 - 1/3 EE technical content globally
- 3.75m technical papers in Xplore
- 1375 conferences annually

Role in Standardisation

- IEEE is a leading global standards development organisation
 - ➔ Process open to all
 - ➔ Approx 1,500 standards completed or under development
- IEEE Standards Association
 - ➔ 20,000 individual and corporate participants
 - ➔ Draws on the expertise of the IEEE societies and technical councils.

IEEE Standards Education Committee



IEEE Standards Education Mission

- Promote the **importance of standards** in meeting technical, economic, environmental, and societal challenges
- Provide **learning materials** on standards for the design and development aspects of educational programs
- Provide **short courses** about standards needed in the design and development phases of professional practice
- Actively promote the **integration of standards into academic programs**

Ongoing Activities

- Standards Education Grants
 - ➔ Encouragement for Capstone projects
- Standards Education websites
 - ➔ Educational resources
- Standards Education eZine
 - ➔ News and case studies
- SE Workshops and Speaking Events
 - ➔ Practical training
- TryEngineering.org Lesson Plan
 - ➔ Pre-university

Standards University Initiative

- Builds on current programs
- Multiple tracks, linked but self contained
 - ➔ Video Track
 - ➔ Workshop Track
 - ➔ Massive Open Online Course (MOOC)
 - “Standards: A Driving Force for Commerce”
 - ➔ Standards Simulation Game
 - ➔ Publication Track
 - ➔ On-Line University Experience Track

Video Track

- Technical videos
 - ➔ introducing popular standards
 - ➔ Collaboration with CNIS
- Interviews with key players
- Guest Lecture Series
- eLearning Modules
 - ➔ From IEEE eLearning Library

Workshop Track

- Builds on current workshop program
- Day-long event
 - ➔ Introduction to standards (technologies, types)
 - ➔ The standards process
 - ➔ Consensus building exercise
 - Standards on Mars
 - ➔ Feedback and review

MOOC

- 6 hour course over 6 weeks
- Aims at graduate level students
 - ➔ Covers introduction to standards, history, basic concepts and classifications, creation, innovation, global markets, trade, implementation, conformity assessment, regulation, intellectual property, motivating factors in standards development

Beneficiaries

- Members individually
 - Better trained and more effective
- The profession
 - Through engineers better understanding the collaborative process of standards
- Industry
 - Through employees knowing how to get involved in standards
- The IEEE
 - More participation in standards
- The community at large
 - Through improved standards

Conclusions & Recommendations

- **Involve academics and industry**
 - Range of individuals and entities from across IEEE
- **Build critical mass**
 - Develop successful pilot programs
- **Evangelize!**
 - Outreach to community at large