



# **IEEE Standards Association- New Approaches to Standards Development and Collaboration**

**Open Forum for Standards Developers**

*Presented by*

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IEEE Standards Association

**cooperation  
collaboration  
harmonization**

# Overview

- ❑ Evolving Standards Challenges
  - Converging technology standards
  - Rapid product and technology cycles
  - Single, globally relevant standards
  - Intellectual property rights
- ❑ New Approaches to Standards Development- an IEEE Perspective

# Standards Challenge #1: Converging Technologies- IEEE Standards Approach

- Internal Structures
  - Collaboration amongst IEEE societies (SCC, joint sponsorship)
  - Collaboration with IEEE-ISTO (e.g., MIPI to IEEE 1149.7)
  - Formation of new societies (preceded by an IEEE Council)
  - Formation of new sponsors (e.g., Nanotechnology Council, SISO, CAG)
  - Expanding scope of society (e.g., stationary to portable batteries)
  - New procedures (e.g., individual & corporate models, IP policy)
  - Study groups (e.g., healthcare informatics, broadband over powerlines)
- External Collaborations
  - MOUs (e.g., IEEE/SEMI for nanotechnology standards)
  - Joint development (e.g., ASTM Nanotechnology Terminology- 7 SDOs)
- Standards Roadmaps (e.g., Nanoelectronics Standards Roadmap)
  - Applicable to emerging technologies (e.g., pre-competitive standards)
  - Identifies standards needs
  - Sets priorities for development

# Standards Challenge #2: Rapid Technology Cycles- IEEE Corporate Standards Program

**GOAL: Reduce the standards development time to 12-18 months**

- IEEE-SA Corporate Program Overview
  - One Company- One Vote
  - Rapid Initiation and Completion (if consensus can be reached!)
  - Defined standards development rules and infrastructure
  - Direct input to IEEE governance (e.g., Corporate Advisory Group is committee of IEEE-SA Board of Governors)

# Standards Challenge #2: Rapid Technology Cycles- IEEE Corporate Standards Program Success Story

- IEEE 1625: Mobile Battery Standard
  - For global lithium-ion battery production
  - 19 battery & laptop computer makers
  - A unique systems standard for cells, packs and computers
  - Created in 17 months (from scratch!)
  - Project acceleration service package

# Standards Challenge #3: Intellectual Property Rules- Traditional IEEE Approach

- How IP is handled in IEEE standard
  - Call for (essential) patents
  - Letters of assurance (LOAs)
  - Reasonable and non-discriminatory (RAND) licensing

# Standards Challenge #3: Intellectual Property Rules- Evolving IEEE Approach

IEEE-SA Standards Board Patent Committee is reviewing:

- ❑ Letters of Assurance
  - Inclusion of “rate cap”
  - Company mergers and assignments
  - Provisions for exclusions
  - Definition of “organizational knowledge” as basis for signer’s assertions
- ❑ What is an “essential patent”?
- ❑ Patent Pools

# Standards Challenge #4: Industry Prefers a Single, Globally Relevant Standard

- ❑ Developing Consortia Specs into international Standards-  
Applying consensus process to specifications
  - Consortia motivated to bring completed spec to SDO for standardization (e.g., Accellera)
  - Multiple consortia can agree to work out interoperability issues at perceived neutral player (e.g., Broadband over Powerlines)
- ❑ Relationships with “International” Standards Developers
  - Dual Logo agreements
  - Liaison relationships
- ❑ Decrease engagements across standards bodies and consortia-  
Increase number of standards projects at a single body
- ❑ Harmonization of work among SDOs (e.g., ANSI standards panels)



# Example of an IEEE/IEC Dual Logo Document

INTERNATIONAL  
STANDARD

IEC  
60488-2

First edition  
2004-05

IEEE 488.2

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Standard digital interface for programmable  
instrumentation –

Part 2:  
Codes, formats, protocols  
and common commands



Reference number  
IEC 60488-2(C):2004  
IEEE Std. 488.2(C)-1992

# IEEE Corporate Standards Program

A global platform delivering speed, choice, & control...

**Questions or Comments?**

**Thank you!**

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