Brain Initiative– SA perspectives

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Brain Initiative – SA focus area

Promote the commercialization and standardization of neurotechnology

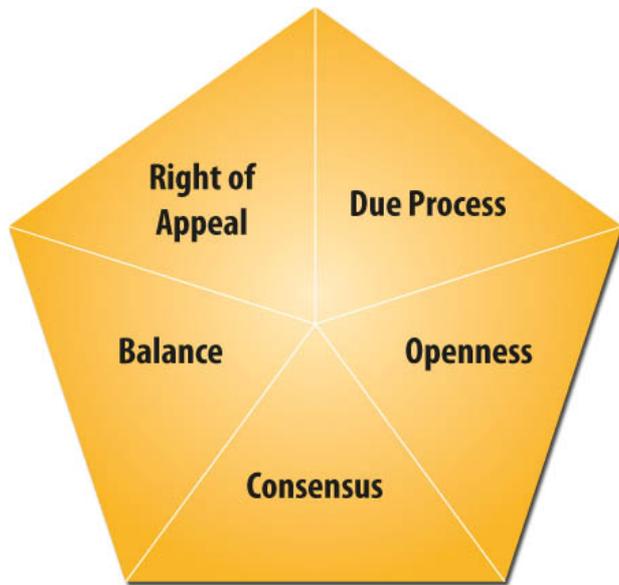SA active in topics related to Brain Initiative objective

- Examples of related SA standards and projects
  - IEEE 2010-2012 IEEE Recommended Practice for Neurofeedback Systems
  - IEEE 11073 health informatics - standard series for medical device communications
  - IEEE 3333.1.1-2015 IEEE Standard for Quality of Experience (QoE) and Visual-Comfort Assessments of Three-Dimensional (3D) Contents Based on Psychophysical Studies
  - IEEE P3333.1.2 Standard for the Perceptual Quality Assessment of Three Dimensional (3D) Contents based on Physiological Mechanisms
  - IEEE P1589 Standard for an Augmented Reality Learning Experience Model

- Other related examples include standards and projects in robotics, sensors, IoT and new prestandards activities for Big Data

- Prestandardization in Industry Connections activities for Smart Glasses Roadmap, Augmented Reality Directions and Standards

Example future topics: interoperability, performance, definitions, privacy

Example future application areas: assistive devices, education, entertainment

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2016 and beyond

5 principles guide IEEE standards development

IEEE mission of Advancing Technology for the Benefit of Humanity

Ethics as theme in FDC and SA

Standards Sponsoring Societies, Councils, Committees
AES Aerospace and Electronic Systems Society
APS Antennas and Propagation Society
BOG/CAG Corporate Advisory Group
BTS Broadcast Technology Society
CES Consumer Electronics Society
CIS Computational Intelligence Society
CS Computer Society
ComSoc Communications Society
DEI Dielectrics and Electrical Insulation Society
EDS Electron Devices Society
EDU Education Society
EMBS Engineering in Medicine and Biology Society
EMC Electromagnetic Compatibility Society
IAS Industry Applications Society
IES Industrial Electronics Society
IM Instrumentation and Measurement Society
MTT Microwave Theory and Techniques Society
NPS Nuclear and Plasma Sciences Society
NTC Nanotechnology Council
PE Power & Energy Society
PEL Power Electronics Society
RAS Robotics and Automation Society
RS Reliability Society
SCC4 Electrical Insulation
SCC14 Quantities, Units and Letter Symbols
SCC18 NFPA Standards
SCC20 Test and Diagnosis for Electronic Systems
SCC21 Fuel Cells, Photovoltaics, Dispersed Generation, and Energy Storage
SCC22 Power Quality
SCC31 Automatic Meter Reading and Energy Management
SCC39 International Committee on Electromagnetic Safety
SCC40 Earth Observation
SCC42 Transportation
Sensors Council
SMC Systems, Man, and Cybernetics Society
CRFID committee on RFID
UFFC Ultrasonics, Ferroelectrics, and Frequency Control Society
VT Vehicular Technology Society

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