Advanced Energy Systems Division

AESD Vision: The AESD seeks to promote research, development and application of emerging energy conversion devices and processes such as hydrogen technologies, fuel cells and heat pumps; to raise awareness of the role of energy technologies in sustainable systems; and to advance the understanding of thermodynamics and its relation to energy issues in the world.

http://divisions.asme.org/aesd/

AESD's Purpose and Scope

- Encourage, promote and coordinate the activities of the membership and technical committees of AESD to develop and disseminate educational and technical information related to advanced energy systems
- Represent the interests of the technical committees of the division to the Energy Conversion Group and ASME Energy Committee
- Provide forums for presentation and discussion of new ideas and information related to advanced energy systems

AESD's Technical Committees

- Systems Analysis
- Fuel Cells and Hydrogen
- Renewable Energy and Energy Efficiency
- Energy Systems Miniaturization

Technical Conferences

- Developing, managing, and conducting energy related tracks and industry discussion panels at ASME conferences including
  - International Mechanical Engineering Congress and Exposition (IMECE)
    - Symposium on Energy Systems Analysis, Thermodynamics, and Sustainability (sponsor)
    - Sustainable Energy Systems: Technology and Efficiency (sponsor)
  - Energy Sustainability Conference
- Contributing to energy related conferences including
  - International Conference on Fuel Cell Science, Engineering, and Technology
  - International Energy Conversion Engineering Conference and Exhibit (IECEC)
  - International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems (ECOS)

AESD Core Activities

- Technical Conferences
- Resources and Publications
- Member and Volunteer Services

Resources and Publications

- Coordinating and delivering ASME journals and conference proceedings
  - Journal of Energy Resources Technology (JERT)
  - International Journal of Fuel Cell Science and Technology
  - Journal of Engineering for Gas Turbines & Power
- Moderating a platform for discussion of energy issues via the Advanced Energy Forum supported by ASME Peerlink.
- Communicating industry and AESD news through the division newsletter and Web site

Member and Volunteer Services

- Coordinating the efforts of volunteers
- Recognizing individual accomplishments through Society-level awards:
  - Edward F. Obert Award for best paper in thermodynamics
  - Frank Kreith Energy Award
- Recognizing individual accomplishments in the systems analysis and fuel cells technical areas
  - Best Paper Awards
  - Best Student Paper Awards

Areas That Need Improvement

- Develop educational products
  - Short courses and workshops on current topics of interest (e.g., distributed generation technologies, fuel cells, hydrogen economy)
- Increase primary membership
- Develop volunteer leadership groups
  - Task forces for addressing issues such as global climate change and sustainability
- Increased interaction with appropriate codes and standards committees for related energy