

SAFETY ENGINEERING & RISK ANALYSIS DIVISION (SERAD)

Part of "Engineering & Technology Management Group"



OVERVIEW



www.asme.org/divisions/serad/index.html

- 50 Year Legacy with History
- Merged Divisions 1991
 - Safety Division
 - Risk Analysis Task Force
 - 1,200 Primary Members

IMECE-2005: SERAD TECHNICAL PROGRAM FOCUS

- General
- Risk-Informed Design
- Risk-Informed Regulation and Oversight
- Methods and Tools for Complex Systems Reliability
- Space and Aviation Systems Risk and Safety
- Integration of Physical and Probabilistic Models for Reliability
- Prediction

MISSION

- The mission of the Safety Engineering and Risk Analysis Division of the ASME is to promote, advance, implement and promulgate related sciences and technologies. The division accomplishes its mission through facilitating communication and education, exchanging technology, and promoting applications and standardization.
- Through the operation of its committees, promulgation of papers and reports, and organization of presentations, the Division is the Society's primary vehicle for exchange and dissemination of safety, health and risk-related technologies.
- The Division promotes the application of safety, health and risk-related technologies with other society Divisions and external entities. This includes development and consistent application of analytical methods, measurement, terminology and designation, and participation in standards development and regulatory processes

STUDENT SAFETY CONTEST

Each year, NIOSH's Division of Safety Research provides administrative support for the Student Safety Design Contest conducted by the Safety Engineering and Risk Analysis Division [SERAD] of the American Society of Mechanical Engineers. The 2004 winning project was "Helicopter Blade Emergency Detachment System" (patent pending) by S. Wismiewski, J. den Hartog and S. Boice of Thayer School of Engineering; Faculty Project Advisor John P. Collier. The winning team received a cash award at the SERAD Dinner at the 2004 International Mechanical Engineering Congress & Exposition in Anaheim, CA on November 15, 2004.



Ward O. Baun III, SERAD Vice Chair and Student Safety Contest First Place Winners:
Scott Wisniewski, Spencer Boice and Jonathan den Hartog

GOALS & OBJECTIVES

- To educate ASME members and others about the importance of risk analysis, safety engineering, reliability engineering, and environmental and occupational health;
- To encourage members to provide their expertise in the standards-setting process;
- To promote codes and standards for new areas in risk analysis, safety engineering and environmental and occupational health;
- To provide closer interface with other ASME Technical Divisions through joint efforts;
- To enhance the quality of technical papers on safety To increase active participation by more ASME members in Division affairs;
- To help members keep pace with the latest developments.

PROFESSIONAL PRACTICE CURRICULUM

SERAD has supported ASME's new web-based professional development tool by developing an introductory curriculum on safety, risk, and management. Enrique Susemihl and William Doerr, members of SERAD, with the sponsorship of FM Global Research, developed a module on risk management for the ASME "Professional Practice Curriculum Online" – (http://www.professionalpractice.asme.org/business_functions/index.htm). This module, currently in beta testing, briefly addresses the following questions, which may critically affect safety, investment and operational decisions:

- What is risk and which elements contribute to it?
- How to measure or estimate risk?
- How to identify a potentially hazardous scenario?
- How to estimate the likelihood of a potentially hazardous event?
- How to estimate the impact of its consequences?
- How to manage risk?

Interested individuals may go to the course summary link:

http://www.professionalpractice.asme.org/ppc_pages/courses.htm and click the link to "Safety Risk and Management."

SERAD SERVICES

Technical Programming

- IMECE (Every November)
 - Peer-Reviewed Papers; 6-7 Sessions
 - Corporate Sponsored Annual Dinner
- DETC (September 2003)
 - Peer-Reviewed Papers; 1 session
- PVP (Summer 2004)

Student Contest Safety Contest

- Founded 1984
- Industry Sponsored (NIOSH & others) with Honorarium
- Newsletter with E&TM
- Division Activities, Needs, and Plans
- Professional Practice Curriculum
- Recognition Awards

SERAD AT IMECE

Strong IMECE Program

- 6-7 Sessions per program; 18-30 papers per program
- Peer Reviewed; Satisfies Professional Needs for CDE
- International Involvement (RIVM)
- Governmental Involvement (NASA; DOE)
- Industrial Involvement (DNV; Triodyne)

2004 HONORABLE RECOGNITION AWARDS

The Safety Engineering & Risk Analysis Division [SERAD] in recent years has had several members who have provided outstanding service to the Division. At the SERAD Dinner held on November 15, 2004 at IMECE-2003, these members were recognized and thanked for their support to the Division. The Program was presided by the 2004-2005 SERAD Chair, Michael G. Stamatelatos.

Those SERAD members who were recognized in this program were: Brian G. Brady, P.E., for "His Leadership of the SERAD Student Safety Engineering Design Contest"

- Dr. N Jan Davis for "her Speech titled 'Returning the Space Shuttle Safely to Flight' to SERAD Members at IMECE-2004;
- William W. Doerr, for "His Leadership as SERAD Chairperson from 2003- 2004"
- Dr. Enrique A. Susemihl "His Service as SERAD Program Coordinator for IMECE-2003 and IMECE 2004"