HEADLINE NEWS FROM THE WORLD OF ENGINEERING

SPRINKLERS CONTAIN STRUCTURAL FIRE TO ONE ROOM, FIREFIGHTERS EXTINGUISH FLAMES WITHOUT INJURIES

FACTORY WORKER RETURNS HOME AFTER UNEVENTFUL DAY

COAL MINER REQUIRES SHOWER FOLLOWING SHIFT

HARVESTER DOES NOT JAM DURING USE, FARMER ENJOYS ICE CREAM WITH DINNER

Headlines like these are not seen in newspapers, which says something about why engineers do what they do and how well they do it. Every day, billions of people encounter and use technology without even thinking about it. People hurtle through the air at ¾ the speed of sound and travel the earth at nearly a mile a minute by road and twice that by rail. People dwell in structures warmed and lit by energy wrung from chemicals pumped from the ground. Yet people seldom dwell on the risks involved in such activities; and fewer still consider the risks involved for the people who make such activities possible. Industrial and transportation accident rates have dropped progressively as industrial output and the number of travelers has risen steadily. Even fire poses less of a hazard. In the United States, yearly accidental fire-related deaths dropped 44% from 1970 to 1996 while population rose 29%.

Everyone knows firefighters save lives, who realizes engineers save firefighters? Everyone knows engineers are somehow responsible for technology. Who realizes how engineers have struggled to provide safety in an ever more complicated world?

Have you got an idea that could make the workplace (and the world) a safer place? **ASME International** wants to give you money for it. ASME International is the world's most recognized organization of mechanical engineers. Each year, ASME International's **Safety Engineering and Risk Analysis Division (SERAD)** sponsors **The Student Safety Engineering Design Contest.** The team submitting the winning entry receives **$2000 for the students; $500 for their advising professor; $400 travel allowance to present the paper at the 2010 ASME International Congress in Vancouver, British Columbia, Canada**.

The **second place** entry **receives $500 plus $200 for its advising professor.**

Entries must be papers describing an engineering analysis, design or study intended to prevent injury, illness and death. One year's winning entry described an automated tie plate insertion machine. Another recent winner analyzed various means of improving safety on fishing vessels. Maybe this year's winner will describe a means of reducing injuries for operators of agricultural or offset printing devices. Or perhaps this year's winner might be an analysis of injuries sustained by firefighters or office workers and make recommendations as to how to minimize those injuries. Whatever the topic, **submitted papers must demonstrate an understanding of a safety problem and provide a solution from an engineer's perspective**. **Individuals or teams of students may prepare entries; senior design or other in-class projects are especially welcome.**

Rules:

- Submitted papers will be judged on the following criteria:
- Background (20%). Systematic identification of the hazard, including full documentation of cited references, standards, and data.
- Methodology (30%). Comprehensiveness of methods used to examine the problem including appropriateness of engineering analysis, potential effectiveness of the proposed design/solution and paper preparation.
- Feasibility (30%). Originality, innovation, practicality and completeness of the proposed design/solution.
- System Safety (20%). Above all the design/solution must itself be safe.

Contestants are limited to undergraduate and graduate students of ABET accredited engineering and engineering technology schools or an international equivalent. All entries must be in English; entries from schools where classes are taught in a language other than English will not be penalized for grammar and spelling errors. Supporting materials such as oversized engineering drawings, CD-ROMs, etc. can accompany the paper. Note however that six separate sets of such documents must be provided and there is no guarantee that all judges will examine them. Monetary awards are typically divided equally among team members, although other means of dividing the award are acceptable. **At least one representative from the winning team must present the paper in person at the 2010 ASME International Mechanical Engineering Congress and Exposition in Vancouver, British Columbia, Canada (November 12-18, 2010).** The $400 travel allowance is the maximum provided to the entire team; individuals traveling to the conference could divide this $400 in any way they see fit. Students or their advising professors can submit papers. **All entries must be submitted by May 20, 2010, to: Brian G. Brady, P.E., 6 Croydon Drive, Bellmore, NY 11710 USA; telephone: (516) 781-0735; *Brian.Brady@ngc.com*. Please include addresses of all team members and the advising professor.**

STUDENT SAFETY ENGINEERING DESIGN CONTEST
2009/2010
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