



<http://coen-nt1.boisestate.edu/asmie/>

TREASURE VALLEY SECTION ASME NEWSLETTER



The American Society of
Mechanical Engineers

March, 2001
Volume 4, Number 7

March 13th Presentation: Decision Support Design Tool for Dimensional Stability of Thermoplastic Feature Design

Mr. Jeff Patrick, a Hewlett-Packard engineer, will present a decision-support tool that assists engineers with the design of thermoplastic parts for improved dimensional stability. The tool addresses performance issues that cause significant deformation of the plastic part during its life cycle and thus changes in critical dimensions. The degradation of dimensional stability has a direct influence on the quality of the part and its cost is estimated by applying the Taguchi Loss Function. In this way, the quality cost can be combined with the manufactured cost of the part for a total part cost. The tool helps estimate these manufacturing and quality costs early in the product-development process where changes can be made relatively easily. In this seminar he presents the design analysis process for the tool, a description of the software, and a case study of its use in an industrial application.

Date: March 13th, 2001
Time: 6-7:30 p.m.
Location: U. of Idaho, MK Plaza, 800 Park Boulevard, 7th floor, Conf Rm B, NE end of Building
Contact: Larry A. Stauffer, stauffer@uidaho.edu, (208) 364-4084

Summary of February Rapid Prototyping Tour

Team leader's Steve Tennyson (PI), Rudy Eggert (Co-PI), and Steve Hatten (TechHelp Mfg. Specialist) gave us a brief overview of the teaching and research applications and then demonstrated the Stratsys FDM 3000. This new Fused Deposition prototyping facility is making models of manufactured goods to help Idaho's design and manufacturing companies and was established in the Boise State College of Engineering last fall.

A few of the results are shown to the left made out of ABS plastic. The ability to reproduce parts with cavities and overhangs was quite impressive.



Prototyping is a standard operation in most manufacturing processes. As new products are developed, parts and assemblies are often modeled in clay, wood and metal to assure form, fit and function. Solid Modeling and Rapid Prototyping are used to save time and cut costs at every stage of the product development process and help bring new products to market faster.



From left to right: Rudy Eggert (Co-PI), Steve Hatten (TechHelp Mfg. Specialist), Steve Tennyson (PI), (Not shown is Gary Mc Cain, Co-PI).

During the 24 month-long program, BSU will work with about 12 companies in different parts of Idaho, to demonstrate the advantages of Solid Modeling and Rapid Prototyping technologies. In addition, Idaho manufacturers not part of the pilot project program can now have parts made for a nominal fee by TechHelp and the Rapid Prototyping facility. The manufacturer e-mails the solid model part file to the facility, which then makes and sends the prototype.



Carl Hamke
Section Chair
carlh@jstimg.com
377-1120 ex 28



Jon Anson
Section Vice-Chair
jon_anson@hp.com
396-2291 (wk)



Tim Jaszowskiak
Treasurer
343-7595 (fax)
336-7650 ext. 122



Dave Gabbard
Secretary/Newsletter Editor
david_gabbard@hp.com
396-5150 (wk)



Alan Russell
Section Program Chair
Alan_Russell@Jabil.com
846-5392 (wk)



Judi Steciak
Membership Development Chair
Jsteciak@uidaho.edu
364-4080 (wk)



Stuart Roberts
Public Information Chair
stroberts@micron.net
368-3466 (wk)



Annette Long
Awards & Honors Chair
Along@simplot.com
384-8378 (wk)

Wanted: Meeting Topics for Next Year

We would like to hear your ideas for next year's meetings. Have you designed a neat machine that you would like to show off, work on an unusual or efficient manufacturing process or know someone who can give us a unique tour or lecture? Rides on military equipment are not required. We normally have plant tours, guest speakers and social events, but we are open to all ideas. Our meetings are held on the second Tuesday evening of each month from September to May. If you or someone you know has an interesting idea for a meeting, please contact Carl Hamke at carlh@jstmf.com or at 208-377-1120 extension 28.

Personal and Professional Benefit-of-the-Month – Homeowner's Insurance

Revisit your home insurance by checking policies available through ASME. The www.asme.org homepage links you to Traveler's Insurance at <http://www.travelerspc.com/personal/home/index.cfm>. An online calculator helps you estimate the replacement cost of your home. Compare this with your current policy. Check out the tips for conducting a personal property inventory. Younger members just out of college should investigate rental insurance. Unfortunately, obtaining an online quote is not possible in Idaho; you need to call (toll free) 1-888-695-4625.

College of Engineering at Boise State University offers Masters Degrees

The College of Engineering at Boise State University offers Masters Degrees in the following areas: Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering. Thesis and non-thesis options are available. More information about our graduate programs and the College of Engineering in general can be found at our website: <http://coen.boisestate.edu>

2 Workshops offered from University of Idaho

Design for Manual Assembly - Feb. 28 and March 1 from 8:00 - 5:00

Design For Manufacturability - March 15 & 16 from 8:00 - 5:00

The cost is \$395 per workshop with a \$20 discount if registered by Feb 12. There is also a discount for registering for both workshops. The price for both is \$700. Both workshops are being held at the MK plaza IV Executive dining room. The courses will be a mixture of lecture and small group working sessions. Course notebook, charts, and software are included in the course fee. Lunch and refreshments will also be provided. Larry Stauffer is the instructor.

Participants will learn how to make products with fewer parts, increase reliability, reduce cost for materials and labor, increase cross-functional communication, and reduce product development time. For more information contact Tammy Ray, (208) 364-4067, tray@uidaho.edu

Treasure Valley Section ASME 2000-2001 Remaining Tours

The following lists our remaining events. See <http://coen-nt1.boisestate.edu/asme/> for latest details.

Date	Time	Event	Location	Contact
Mar 13th	6 pm	Professional Development Short Course - Decision Support Design Tool for Dimensional Stability of Thermoplastic Feature Design	U. of Idaho, MK Plaza, 800 Park Boulevard, 7 th floor, Conf Rm B	Larry Stauffer (208) 364-4084
Apr 10th	6 pm	National Air Guard (Apaches, Warthogs), Gowan Field.	Gowan Field?	Wade Tomlinson (208) 368-5255
May 8th	6 pm	Table Rock Brewery tour. Either brewery in town or out of town. End of year meeting, plan next year's events.	TBD	Alan Russell (208) 846-5392