



# MECHANICAL ENGINEERING NEWS

December 9, 2002

A newsletter for the UML Mechanical Engineering community (also available online at <http://m-5.uml.edu>)

Any items you would like to see included in the newsletter or any suggestions/comments?

Please email them to: [peter\\_avitabile@uml.edu](mailto:peter_avitabile@uml.edu) or leave them with Jackie Paradise in the Mech Eng office.

## Mechanical Seminar Series

On Friday December 6<sup>th</sup>, Dave Crompton of SSG Precision Optics gave a talk on some of his experiences as a mechanical engineer and as a manager of a group of engineers at the Mechanical Engineering Seminar Series. Dave is currently Manager of Mechanical Engineering with approximately 40 engineers that are involved in a variety of engineering aspects of design and structural/thermal analyses of optical systems.

Dave will discuss some of the day to day activities of his engineers, what skills and knowledge they need, and the problems they face. He will discuss some things that school can prepare you for and what things it can not. Dave will also address the importance of working with other people and about the “engineering idealism” vs. the realities of the business environment.

## Mechanical Seminar Series

Don’t forget that Friday, December 13<sup>th</sup>, John Mirageas of FLIR will give a talk on Image Stabilization Enhancement. John Mirageas is a Principal Mechanical Engineer at FLIR Systems. His primary responsibilities include Mechanical Design and Analysis. Prior to FLIR, John was a Senior Development Engineer at the Missile Systems Division of Raytheon Co., where he worked on the design and development of missile IR & Microwave gimbaling and Control Actuation systems.

John will discuss some of the detailed aspects of flight data which causes a degradation of signals necessary for the accurate depiction of images. John will discuss aspects of the determination of system vibrations that cause operating difficulties and the feedback and control systems implemented to improve the system performance.

## Spotlight on COMPANIES



SSG, Inc  
Wilmington, MA  
[www.ssginc.com](http://www.ssginc.com)

SSG is a developer of affordable telescope and precision pointing space systems. The company was founded in 1977 in Waltham, MA and has grown to over 160 employees and full time contractors. We provide system engineering, design, fabrication, testing, and optics manufacturing to NASA, JPL, many major aerospace firms and for several commercial applications. In October of 1997, SSG moved their system engineering, design and integration & test facilities to Wilmington, MA.

## Spotlight on COMPANIES



FLIR Systems  
Billerica, MA  
[www.flir.com](http://www.flir.com)

Founded in 1978, FLIR Systems, Inc. has a long and proud history of meeting the thermal imaging needs of markets as diverse as the military, law enforcement, electronic news gathering, and industry. Imaging applications include public safety, defense, navigation, and search and rescue, while thermography products support condition monitoring, non-destructive testing, medical science, research and development, and manufacturing process control. For more information, please visit [www.flir.com](http://www.flir.com).



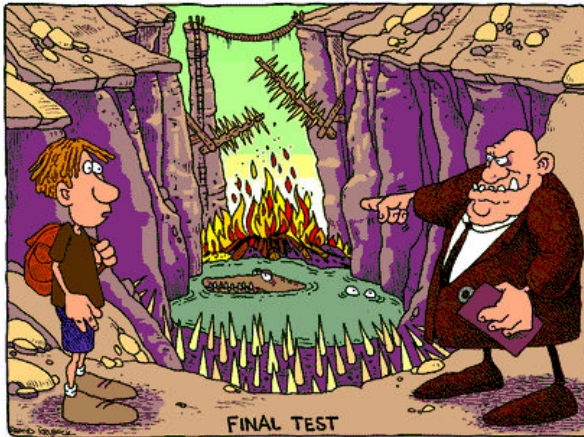
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## Final Exams Are Almost Here !!!

Everyone is in the final stages of the end of the semester. That means final tests are right around the corner and then a well deserved break to get ready for the Spring Semester.



So how do you make the most of your education when you have a hectic schedule right up until the end of the semester. Well over the Christmas break, it would be a good idea to organize all of your class notes from the last semester. It is a good idea to look at everything while it is still fresh in your mind. Remember that all of the courses that you take, in one way or another, are related material that you need in order to solve real engineering problems.

Take the Christmas break as a time to refresh yourselves but also use the time to revisit material from your last course – especially the material that was not as clear in your mind as you may have liked it to have been. If you do it now then you will be happy in another semester or two when you have to refer back to the notes from previous courses. While you may feel it is a waste of time, it is an invaluable exercise that will benefit you now and in years to come.

## DON'T FORGET THE SEMINARS!!!

### Mechanical Engineering Seminar Series

**Dec 13** John Mirageas – Flir Systems

And next semester there will be an equally impressive set of presentations - so read the newsletter to see schedule . Some tentatively scheduled speakers are:

- Tom Renaud – BAE Systems
- Pete Sheahan – Raytheon Corp.
- Ken Woodard – Kollsman Industries
- Chris Finch – BFGoodrich
- David Dussault – Aerodyne
- John Seymour – Applied Mechanics
- Jason Allaire – Lawrence Pumps
- Jim DeClerck – General Motors
- Charles Roche – Pratt & Whitney
- Ken Lown – SUN Microsystems

## On the lighter side

