KGCOE R·I·T

Enginuity

Newsletter for Kate Gleason College of Engineering Alumni

Summer 2007

Dean's Corner

I am deeply concerned about the vitality of the U.S. economy in the long term. It seems like almost every day we read something about the challenges of globalization and the threat of outsourcing of jobs. It used to be that the concerns were focused on the loss of manufacturing jobs. But now we regularly read about engineering jobs being outsourced as well. The pessimism can only lead to one thing: providing yet another good reason why the next generation of young men and women should follow an academic path away from science and engineering. It used to be that the rigors of an engineering curriculum were sufficiently daunting as to discourage all but the strong-minded souls that were up for the challenge. But even these individuals are likely to lose heart when told repeatedly that despite their hard work and commitment they are likely to see their jobs moved elsewhere. I am told by media experts, "America is steadily moving towards a service-based economy." Is this such a bad thing? If you believe as I do that globalization is inevitable, and that all domestic economies will merge into one huge global economy, then a service-based domestic economy is not a good place for America to be.

Economic growth – true growth – occurs through the development of innovative, value added products that uniquely meet customer needs and desires. The conceptualization, development and manufacture of these products is the purview of engineers. It is what the

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Meet Alum Raymond Malpocher

Do the right thing
For the right reason
In the right way
Always, without exception

These are words of wisdom from Raymond Malpocher, ME '70. Ray has had a broad and varied career since graduating from RIT. Although he obtained additional degrees from the University of Rochester, he considers his BS degree from RIT to be the most important because it opened all the doors for him that led him to where he is today.

Ray began his career at Kodak with an associates degree and with no intention of continuing his education. While working there, he was encouraged to get his BS in mechanical engineering. Ray was drawn to the program at RIT because it offered practical, applicable skills that he could use immediately. The faculty, many of whom came from years in industry and with knowledge of the manufacturing world, offered a program that provided a seamless bridge between theory and practice.

After receiving his degree, he went to work for a smaller firm that had a limited number of engineers. Ray learned to wear many hats; he had to be able to think and work like a mechanical engineer, and electrical engineer, and civil engineer, for instance. Ray credits RIT with giving him the broad knowledge, skills, and perspectives to do that easily and effectively. The ability to wear many hats is especially important in small companies, which are the lifeblood of our industrial manufacturing base.

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After graduation, Ray first went to work for Lapp Insulator Company, where he eventually became president of one division. Ray had taken his division to new heights of success. However, the core business was not performing as well. Ray says, "its like being on a party boat and having a great time in the bow when at the same time the stern is on fire and ready to go under."

" I have watched RIT become a prestigious university using a similar roadmap. RIT has had great leadership, personnel, vision and focus. It has had high integrity and continually improved over time."

Ray leveraged his rich collection of such real-world experiences to develop a career focused on turning around small companies facing significant challenges. When a company is experiencing performance and financial difficulties, there is not much time to improve profitability. With a tight turnaround schedule required, Ray needed a formula to quickly determine where to eliminate waste and improve performance. He also needed to find out where the dead wood was and who the natural leaders were. First he would identify four or five people from all levels who were respected for their quiet leadership and love of the company. These people would form a team for the rebuilding processes that would follow. One of the processes involved writing the names of all the employees on a white board. He then asked each member of his team to select and rank the employees he or she would want on his or her individual team. Invariably, he would find that about 25% of the employees would never appear on anyone's list for one reason or another – either poor performance or poor attitude.

Another process Ray employs involves applying lessons learned along the way, and turning failing companies around has provided many lessons for Ray. From those experiences he has learned how important it is to have a clear vision of where you are going, an unambiguous way to communicate that vision to a variety of constituencies, a strong sense of ethics, and dedication to continuous improvement of your company and of yourself. He has synthesized the message of these lessons into, d*o the right thing, for the right reason, and in the right way*.

Though Ray now enjoys some well-deserved time off with his wife, Suzanne, he is not what one would call inactive. He is serving on several boards and mentoring CEOs in a variety of companies. Ray is also writing a book about his philosophy on leadership. He may actually be busier than before!

First Annual KGCOE Hockey Night

Over 50 KGCOE alumni, faculty, and their guests joined Dean Harvey Palmer and RIT Hockey Coach Wayne Wilson for our sold out pre-game tailgate party in the RITz. Fans enjoyed pizza, wings, and RIT's famous chili before heading over to watch a grueling hockey game between the RIT Tigers and the UCONN Huskies. Despite a loss to UCONN that night, our newly minted Division I Tigers continued their winning streak the next night and ended the year by taking first place in their conference! We hope you join us for our 2nd Annual KGCOE Hockey Night next year, as we cheer our Tigers on to victory again! Details about the event will be released once the 2007-2008 Men's Hockey Schedule is set. Please check our Alumni Relations website regularly for more information on Hockey Night and other KGCOE events: http://www.rit.edu/~032www/activities/kgcoe.html

KGCOE Events at Brick City Homecoming

Plans are underway for BCH 2007! We hope you can join us and take a tour of the new addition. Computer Engineering is in an entirely new space. The Formula Team and the Aero Team have new spaces. And an entire floor is now devoted to multidisciplinary senior design! Hope to see you there. Here are the plans so far:

KGCOE Cocktail Reception (prior to the RIT Gala)
Friday, October 5 - Convention Center

Saturday Events
METEOR Team
9:00 AM
See live mission control operations and streaming video during the tracking of an instrumentation platform lifted at 80,000 feet by a high altitude balloon.

KGCOE Reception
Erdle Commons
10:00-11:00 AM

KGCOE Classes without Quizzes - Reverse Engineering
Hear and see how engineers analyze structure, function, and/or operation of objects or systems by taking things apart and examining components in detail to create something entirely new and original.
11:15 AM-12:15 PM

Where Did All the Heat Go?
An interactive engineering experience for 5th-7th grade children
11:15 AM-12:15 PM

KGCOE Alumni Hospitality Room
Design Center-New Addition
10:00 AM-5:00 PM

Industrial & Systems Engineering Annual Golf Tournament
Place and Time TBD

Scenes from Brick City Homecoming 2006

Alumni Offer Valuable Time and Advice to Students

The newest speaker series to the College, the Dean's Alumni Speaker Series, got off to a great start! Engineering alumni returned to the College throughout the year giving presentations that offered insight and guidance on professional career opportunities to our engineering students. Our speakers first enjoyed a luncheon with selected students and faculty before their presentations. Topics of discussion covered both personal and professional experiences after leaving RIT with time allowed for students to ask questions. The speakers and the titles of their topics were as follows:

Britta I. MacIntosh (ME '89), Business Development, NORESCO - "Who do You Know? The Value of Personal Contacts to Your Career"

Mark Redding (RIT, '86), President of Impact Technologies - "The Significance of Your First Job and How it Shapes Your Career"

Ted Diehl (ME, '89), Sr. Research Engineering Associate, DuPont Engineering and Research Technology "Mechanical Engineering at DuPont: From Process Equipment to End-use Article Development"

Bart G. Guerreri (ME '67), Chairman of the Board & President, DSD Laboratories, Inc. - "What Makes a Business Work: Behind the Scenes at DSD Laboratories & Backbone Security"

Stephen Marschilok (EE '84), Vice President & General Manager, Harris Corp., R. F. Communications Division "Multi-Disciplined Career Paths and Program Management"

Holly Hillberg, (EE '92), Chief Technology Officer and Vice President, Carestream Health, Inc. - "It's Not a Career, it's an Adventure! How to Land a Career that You Love"

Michael Field (ME '86), Vice President of Engineering, Raymond Corp. - "Closed Loop Product Development"

Cole Standish (ME '99) and **Richard Vattimo (IE '89)** are already slated for next year's Speaker Series.

If you would like to participate as a speaker, please contact Eileen Galinski in our Alumni Relations Office (Eileen.Galinski@rit.edu or 585-475-2944).

Britta MacIntosh & Harvey Palmer

Bart Guerreri & Harvey Palmer

"The graduate seminar students have told me that this lecture series has been a great experience for them. The visiting alumni have covered topics that can't be covered in their regular classes. The lecturers have given them insights into the world of working engineers on a variety of career paths and have made them see and think about their future careers in ways they had not considered."

Dr. Wayne Walter, ME Professor

Three-Story Addition to the James E. Gleason Building Open for Business!

The view looking northeast out of the wall of glass from the fourth floor. This wall is slanted inward and fills the entire space with light.

The greatly expanded mechanical engineering machine shop. This picture was taken from the new space looking down through the old.

The ceiling in the multidisciplinary design center inspires students with its unique curvilinear waves of rippling metal.

Dr. Wayne Walter meeting with graduate students in the new design center.

An Evening with the Dean

About 25 retired KGCOE faculty and their spouses enjoyed the first ever *An Evening with the Dean*, hosted by **Charlie and Carolyn Haines** in their lovely home. Pictured below from left to right:
Dr. Edward Schilling, Dr. Robert Snyder, Dr. John Hromi, Dr. Jon Freckleton, Dr. Jasper Shealy, Dr. Swaminathan Madhu, Jean Schilling, and Dr. Robert Ellson.

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engineering profession is all about. Therefore as a nation, we cannot afford to diminish even in the slightest way the perceived value of an engineering degree.

For far too long, we as a nation have viewed an engineering education in a unique way, as a means to an end. Prospective students and their parents worry about whether there is a job waiting for them upon graduation. Is there any other discipline or major that students pursue for which a surplus of jobs is a prerequisite for following that academic pathway? For example, it is well accepted that there are not enough jobs available for all those who choose to major in psychology each year. Yet the number of bachelors degrees granted in psychology steadily rises. In 2004, for example, 82,100 students earned their bachelors degree in psychology, compared to 78,200 for all the engineering and technology disciplines combined.

I wish that our society would finally realize that our nation can never have enough engineers, and that learning how the physical world really works is as intriguing and enjoyable as subjects like comparative psychology. Engineers are problem solvers. They can critically analyze anything. Therefore, people with engineering degrees can contribute to society in unlimited and indeterminate ways. And yes, engineers also create new products, jobs, and industries that truly grow the economy in a global fashion.

This leads me to my final point. Are you aware that the Bureau of Labor Statistics (BLS) has compiled data showing that there will be an acute overproduction of engineering degrees in the U.S. by the year 2012 (excepting computer disciplines and industrial engineering)? Furthermore, these data are being used to educate Capitol Hill and shape public policy, presumably to justify a reduction in government spending for post-graduate education in engineering and technology. Needless to say, our key economic competitor nations are choosing

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A Special Thanks to Our ANBOD Representatives

There are a number of opportunities for RIT alumni to continue their involvement with the Institute. One such method is through the Alumni Network Board of Directors (ANBOD), an alumni organization that serves as the governing body of the RIT Alumni Network. Members of the Board are charged with providing leadership in developing and executing stimulating alumni programs and activities. Selected from a wide spectrum of graduation years and geographic areas, this board of approximately 40 members represents the voices of nearly 100,000 Institute alumni. In these highly visible leadership roles, board members are chosen to commit talent, time, and resources to the Institute. The Kate Gleason College of Engineering is represented on the Board by six KGCOE alumni. We gratefully acknowledge the efforts of the following individuals who have so generously dedicated their time and resources this past year: Mr. Victor Del Rosso (ME ’51), Mr. William Hard (IE ’74), Mr. George Heron (EE ’75), Ms. Stacy Johnson (ME ’96), Mr. Richard Vattimo (IE ’89), and Mr. Andrew Zach (IE ‘2003).

President Simone with the Alumni Network Board of Directors

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the opposite strategy, making every effort to educate as many engineers as possible. What the BLS is even more surprised about is that the vast majority of technology leaders within major U.S. industries are predicting an acute shortage of engineers, despite the fact that the BLS projections derive from surveys sent to these same U.S. companies requesting information on expected hiring patterns over the next ten years. In my opinion, the dilemma derives from the fact that the predicted hiring patterns of established U.S. companies provide little insight into our nation’s economic future. Given that small businesses account for roughly two-thirds of the new private sector jobs in the U.S. (according to the federal government), it seems reasonable to expect that a high percentage of the jobs for a new generation of engineers haven’t even been imagined yet. This brings me back to my original point: engineers create jobs through new product development, and the most innovative engineers create those products that are both unanticipated and transformational.

If you would like to share your own thoughts on this or other issues relating to the engineering profession, please write us through our Alumni Relations Director, Eileen Galinski at Eileen.galinski@rit.edu. We all would be pleased to receive your comments.

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If you have an idea for a story or a feature that you would like to see in this publication, please contact Karen Ester at kmeeee@rit.edu or 585-475-7135.

KGCOE

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