

**Fishing for a solution to Beothic's processing problems**  
*WPI's first Annual IIE Case Study Competition*

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On Sunday, February 20, 2011, WPI's Institute of Industrial Engineers (IIE) Student Chapter held its first Case Study Competition. Xuanya "Bill" Zhang, Program Director of WPI IIE, and yours truly planned and organized the event. I made and distributed the flyer for the competition with Bill, while Sarah Albrecht, President of IIE, filled your inboxes with an email about the event. She also helped choose the case that was to be solved.

The competition had teams of 3-4 students. Actuarial Mathematics (MAC) majors to Management Engineering (MGE) majors were represented at the event held by IIE. The competition, as does IIE, invited participants from all majors and all year levels. The teams received the case at 9:00 am (while most people would be sleeping in on a Sunday) in the Washburn (WB) Labs lounge and had six hours to understand, analyze, and solve the case. Each team had to have a short paper written and a PowerPoint presentation finished by 3:00 pm, which was the time the presentations started. This experience was one of the most stressful I have ever had, but I would not have changed it for the world. I learned how to work with people I've never worked with before in a fast paced environment to solve a problem and present a solution. The case was about improving production at Beothic Fish Processors Ltd., a fish processing facility, by improving the plant layout and taking into consideration the criteria requested by management.

Beothic processed capelin (a type of fish) which they had to separate (choosing only the marketable intermediate sized females), package, weigh, and forklift to be frozen and stored. Their current system was inefficient and unsafe for workers as the work space was crowded; workers had to keep one eye on their work and another on the forklift. Good product was lost because it would accidentally fall onto the waste conveyer that was right below the conveyer of unsorted capelin. Management wanted to fix these problems so they could maximize capacity. We needed to figure out a way to fix the problems by changing layout; neither building a new facility nor expanding the current building was an option.

At 3:00 pm, each team presented and defended their solutions to a panel of three judges. Professor Renata Konrad (IE Professor and IIE Faculty Advisor), Professor Amy Zeng (Director of the IE Program), and Wally Towner (IE adjunct professor), took time out of their busy schedules to judge the event. Thank you, professors. All of the teams came up with great solutions but "there can only be one" or "there can be only one" (*Highlander*). The winners and runner-ups received gift cards and everyone received small complimentary prizes. Even though there was only one winning team, everyone who participated was a winner. (Yes, I know that was cheesy but I stand by what I said.) We learned how to work with people that we may or may not have known nor worked with before and come up a solution or solutions to present.

The Case Study Competition was a great learning experience and way to network. We also had free dinner (the best kind) afterwards. I hope to see more people next year.

For those IE majors and others interested in what else IIE has to offer – IIE has just started an chapter-wide Mentor/Mentee Program, hosted a very successful Six Sigma Green Belt Certification Course in February 2011, and has connected with GE Aviation to run great guest lectures at meetings and provide GE Aviation operations-based plant tours!

Now to leave you with some words from the wise...

"This event supports WPI's project-based education model and provided students with another hands-on opportunity to tackle close to real-world problems. But in this event, each student team was challenged to understand the case, work with the team members to come up with workable solutions, and present findings within six hours. I was impressed with each team's enthusiasm and dedication and the effectiveness of the teamwork, and was thrilled to see the participation from various majors in this competition. I look forward to the continuation of this event and the involvement of a larger student population." –Professor Amy Zeng

"The case competition helps develop your skill set to solve unstructured problems and create value for the organization. The better you are at this, the more valuable you are to the company. Case Study Competition helps you improve this tool in your engineers tool kit!" – Professor Walter Towner