

Finding Innovative Solutions Working with a Student Senior Design Team

Interview with Jud Savelle

When Jud Savelle, IE 2002 and MS IE 2005, manager of Delta Air Lines Inc.'s Airport Customer Service Airport Engineering, needed a fresh approach to some of the problems he faced in the airline industry, he turned to the Stewart School of ISyE's senior design program. Savelle has an interesting perspective on the program as he participated in senior design when he was in his senior year at ISyE. Now he is returning to Georgia Tech, but this time as a project sponsor.

ISyE: Why did you choose to sponsor students in senior design now that you are in the working world?

JS: My current company is a large U.S. airline in an industry ripe with problems of interest to industrial engineers. From my own experience in senior design, I know that an industrial systems and engineering education is not truly complete until you apply what you've learned in the classroom to the working world. I wanted to provide students this opportunity in an environment that I knew they could learn from. And, to be honest, most companies in my industry would never turn down free consulting services from six intelligent Georgia Tech industrial and systems engineering students.

ISyE: What was your experience like sponsoring a senior design project?

JS: Identifying the project was the easiest part of our experience. The most difficult was choosing a team from among so many qualified groups. Once we chose a group, they exceeded our expectations in many ways. The students asked many insightful questions and always accepted our feedback on their progress. They questioned our business rules and gave their own feedback in the most appropriate manner, and they always presented themselves professionally during office and site visits. We never felt the need to micromanage the team because they consistently kept us up to date on their progress. From start to finish, they represented Georgia Tech and the

Industrial Systems and Engineering program magnificently.

ISyE: What was the project that you set before the senior design student team?

JS: We presented our students with a routing and assignment problem at our largest hub here in Atlanta. The specific problem was to increase the utilization of drivers handling local departing and terminating baggage. We provided them with schedule, demand, and staffing data and in return asked for a solution that would minimize the time drivers spent deadheading, balance resources, and ultimately reduce the costs necessary to run the local baggage operation.

ISyE: Why did you choose that project for the students?

JS: Having been through senior design ourselves, my team at Delta and I were familiar with the project scope that should be presented to the students. This particular baggage project met the scope requirements and was also something my team had wanted to work on in the past but did not have the necessary resources to do so. We also knew the project would present opportunities to use specific industrial

engineering tools, such as simulation, in a business setting. I was very pleased when the students asked us to increase the scope of the initial project to introduce some components that would challenge them above and beyond the expectations of the course.

ISyE: Were the results satisfactory?

JS: The results were absolutely satisfactory. I was most satisfied with the way the students were able to minimize technology requirements necessary to implement the solution. They were very sensitive to our financial constraints for new technology and worked hard to keep those projected costs down by developing their own code and software tools. I was also pleased with the specific methods they brought from the classroom to apply to our problem, proving that seemingly complex assignment algorithms can actually be utilized in a business environment.

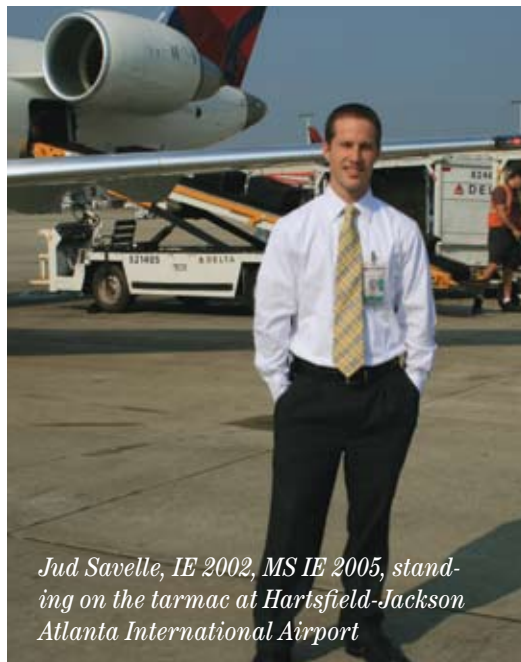
ISyE: Was your company able to implement or utilize any of the solutions presented by the senior design team?

JS: The solution has not yet been implemented. Our company recently announced a significant merger, and the students' proposal will soon be reviewed as part of an extensive list of best practices to be implemented in the combined company.

ISyE: Any plans for future collaboration with ISyE senior design teams?

JS: Absolutely. I and many others in my division recognize the value of this program, and we will continue to seek participation with senior design teams on future projects throughout the company.

To learn more about how you can become a project sponsor for an ISyE's senior design project, visit www.isye.gatech.edu/seniordesign.



Jud Savelle, IE 2002, MS IE 2005, standing on the tarmac at Hartsfield-Jackson Atlanta International Airport

This interview was held in June 2008. Jud Savelle left Delta in mid-August. He and his wife Jenny, IE 2002, MS IE 2003, returned to his hometown of Albany, Georgia, to expand the family business.