For six-and-a-half months Leaders for Manufacturing (LFM) students put their skills and knowledge to the test working at an operations internship to meet the requirements for their degrees – as LFM students receive a Master’s degree in Engineering from the School of Engineering and an MBA or an SM from the Sloan School of Management. Dave Larson, LFM ’09, recently returned from his internship experience at Sikorsky, a United Technologies Company, located in Connecticut that makes a wide variety of helicopters for industrial, commercial, and military use.

Dave had always wanted to go to business school, and while Googling different school offerings, came across the LFM program. He knew the program would be a great fit with his background and with his wife Heather’s encouragement he applied and was accepted. With degrees in mechanical and aerospace engineering and prior work experience at Ball Aerospace & Technologies Corporation, Dave was a natural fit for an internship at an aerospace company such as Sikorsky. When presented with all the choices for LFM internships, Dave was intrigued by several of them, but the location was important as Heather was pregnant and Dave needed to be close by. The couple now has a 5-month old daughter named Annabel. Sikorsky turned out to be such a good match for Dave that he will return to the company as a full-time employee after graduation this June.

The demand for helicopters has grown rapidly in recent years and while this is great for business, Sikorsky could not keep up with the requests. “The demand for helicopters, such as the Black Hawk, the Naval Hawk, and the Sea Hawk, has grown a lot in the last few years due to the war on terror. Sikorsky has a huge backlog of orders, and they can’t make them fast enough to meet demand. They hired some new people to handle the work and with that comes more training and mistakes. The big objective that I was asked to look into was to reduce reworkable discrepancies – this is where a mechanic will install a part for a helicopter and then an inspector will double check the installation. The inspector will sometimes find a problem...
such as a screw head stripped. A mechanic would then have to go back and fix the problem. These discrepancies had increased compared to what they had historically been. Although a mechanic can easily fix the problem, I was asked to look into ways to prevent the problem in the first place,” Dave said, noting that the aircrafts are always 100 percent safe before they leave the plant.

To help with the process, and to save time and labor, Dave looked into a variety of ways to prevent such mistakes from happening. Noting that many of the parts for helicopters were made in the Stratford, Connecticut location, the supply chain of parts needed to build all the helicopters comes from places around the globe, adding another level of complexity to the work. To tackle the project, Dave first watched the mechanic’s line to see how parts were installed. He soon discovered that the mechanics were not responsible for fixing their own discrepancies. If an inspector found a problem, another mechanic was tasked with fixing it and reinstalling the part. This broke down the line of communications and mechanics would often not know what they had done incorrectly. Dave and his team brought together both the mechanics and the inspectors to work on the problem.

“We came up with a system that at the beginning of every shift, the supervisor would hand out a report of the problems to the mechanics that they had found the day before. The mechanic’s first job of the day was then to go back and fix the reworkable discrepancy,” he said.

Dave said they also provided the name of the inspector on the report so the mechanic would then know who to speak with about an issue or concern. He admits that the first few days of this new process were a little rough for both the mechanics and inspectors, but both teams soon found they were receiving feedback that they never had before, as well as learning from their mistakes. “In the end we came up with a process that everyone could agree to,” Dave said. “The real win was that the mechanics were thrilled that they did not have to fix other people’s mistakes anymore. They thought it was about time.”

Now that communication is clearer and people are more accountable for their work at Sikorsky, Dave hopes that there will be less reworkable discrepancies and fewer delays going forward – and this is the topic of his LFM thesis. “Some places it worked, and some places it didn’t,” he notes. “A lot depends on the individual and some depends on the supervisor and inspector. For one particular supervisor and his group it worked very well. The shop floor can be a tough place. If they don’t trust you, you won’t get anywhere. It’s hard because as an intern you don’t have any real authority.” Luckily, they trusted Dave.

Dave also helped Sikorsky with stock problems known as ‘stock outs’ when the company doesn’t have enough of a part needed. He said it’s pretty universal for assembly units to have too much of one part and not enough of another. He suggested they hold ‘safety stock levels’ on certain parts – especially the ones with longer delivery times, and notes that Steve Graves’s Supply Chain planning course (15.762J) was especially helpful solving that particular problem.

“Watching the final assembly of the helicopters is fun and the best part of working there. There are usually 20 of them on the final assembly floor at any given time. When a helicopter is completed it goes right out the hangar door for a test flight. You pull into the parking lot in the morning and there are helicopters taking off and landing. They have TV monitors all over the plant so you can watch the flight field. Once they are completed, United States Army and Navy helicopter pilots come in and fly them off to where they are needed,” he said.

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Although Dave did not have the opportunity to fly in a helicopter while he was interning, he hopes to catch a ride when he returns this summer.

Down the road Dave would like to return to home to the Boulder, Colorado area. He believes he will always be working in a factory, on an assembly floor, and leading a team of great people who love to solve interesting problems. He believes the LFM program has given him a great set of tools to do so. “I definitely think LFM has helped me achieve my goals. The best part of the program is my classmates. I learned more from them and talking to them than in my classes. They have been the most fun to work with,” he said.

**Quarter Four Physical Education Registration Starts Today for Graduate Students**

Features of the new registration system include:

- Choose to enroll in open class or choose to waitlist in closed class
- Real time registration
- Real time waitlist
- Online add and drop functionality during registration period
- First come, first serve registration

Remember you must be present the first day of the course to secure your spot. Register at mitpe.com, today, Monday, March 16. Waitlists from PE Registration will be used to fill open spots on the first day. Attend the first day of class to learn of openings.

Featured spring class: Daytime SCUBA for graduate students, 1:00 p.m. - 3:00 p.m. at the Z Center. For more information see FAQ at mitpe.com

**Third Annual Grad Gala to be Held**

Three course dinner at the Park Plaza (please bring 21+ ID)
Live band
Live DJ after-party

This event takes place April 11, Boston Park Plaza Hotel and Towers, 7:00 p.m.-1:30 a.m. Buy your tickets ($35) before they sell out. For more information visit: gsc.mit.edu/gradgala.

Brought to you by the MIT Graduate Student Council, Grad Rat, Grad Gift, Subway, and Anna’s Taqueria.

**Save the Date!**

MIT Sloan Excellence in Teaching Awards, Friday, May 1, 12:00 - 1:00 p.m., Diebold Lounge. Please watch your inbox for more information!
Modigliani Books Available

The family of Franco Modigliani has generously donated approximately 200 books from Professor Modigliani’s home office that they would like distributed to the students of MIT Sloan. We will be setting the books on a table in Diebold Lounge at noon today – the books are free for the taking. Out of respect for your fellow students, one book per person please.

Award Winners: A team including representatives from MIT Sloan and the MIT Media Laboratory won the Best Paper Award for their paper, “Mining Face-to-Face Interaction Networks using Sociometric Badges: Predicting Productivity in an IT Configuration Task” at the International Conference on Information Systems (ICIS) recently. Pictured, from l-r: Professor Alex (Sandy) Pentland, Director, Human Dynamics and Research Toshiba Professor of Media, Arts, and Sciences; Lynn Wu, PhD student at MIT Sloan, and Erik Brynjolfsson, Schussel Family Professor at MIT Sloan, and Director, MIT Center for Digital Business. Not pictured are collaborators Benjamin Waber, Research Assistant at MIT’s Media Laboratory and Sinan Aral, PhD ’07, Assistant Professor at NYU’s Stern School of Business.

Quote of the Week

“To turn really interesting ideas and fledging technologies into a company that can continue to innovate for years, it requires a lot of disciplines.”

—Steve Jobs
MIT Sloan Team Takes First in Case Competition

A team of MIT Sloan students Anju Mathew, Irina Starikova, Inaki Berenguer, Justin Jow, Matthias Sandler, and Ignacio Vargas all members of the MBA Class of 2009, recently won the Buyout Case Competition organized by the Wharton School of Business.

The format of the competition was slightly different from others. The case was over 80 pages long and was delivered by the organizer on Monday, February 23, at 5:00 p.m., and the team quickly worked on the case until Wednesday, February 25, when the presentation was due at 5:00 p.m. The final presentations took place on Friday, February 27 at Wharton.

Thirteen teams from 10 universities including Wharton, HBS, Chicago, Kellogg, Columbia, Tuck, Wharton, and NYU, participated. The competition consisted of two rounds – in the first round teams were split into three groups where the winner would advance to the finals – where MIT Sloan prevailed. The team said the key to their success included: a great mix with people with backgrounds in private equity, consulting, and entrepreneurship. They were also helped by not being too focused on winning, but rather on having fun.

Ignacio noted that the team achieved each and every one of their goals for the week: successfully representing MIT Sloan; no car accidents (minor damage to an undercarriage doesn’t count); and they completed a detailed cheese steak market survey while in Philadelphia.

The MIT Sloan team was proudly sponsored by the MIT Sloan’s VCPE club.

MIT Sloan Sports Analytics Conference Held

On March 7, the Third Annual MIT Sloan Sports Analytics Conference was held and brought together executives from major professional leagues, academics, researchers, and students to discuss evolving analytic trends in sports management.

Daryl Morey, General Manager of the Houston Rockets, and Jessica Gelman, the Kraft Sports Group and New England Patriots Director of New Business Development and Operational Initiatives; Ray Allen, Boston Celtics All-Star Guard; Mark Cuban, Dallas Mavericks Owner; and Adam Silver, NBA Deputy Commissioner; and Steve Pagliuca, Managing Partner, Boston Celtics and Bain Capital were some of the attendees.

This year’s sponsors included:

- **The Parthenon Group**, a boutique provider of sports industry management consulting: [www.parthenon.com](http://www.parthenon.com).

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- **yOOnew**, the world’s first futures exchange for event tickets – designed to help consumers save money and time when buying and selling tickets: [www.yoonew.com](http://www.yoonew.com). (Run by two MIT Sloan alums)

- **SPARQ**, whose mission is to enable every athlete to reach his or her potential using natural and analytically-driven training methods: [www.sparqtraining.com](http://www.sparqtraining.com).

- **Adidas**, the global leader in the sporting goods industry with sports brands built on a passion for sports and a sporting lifestyle: [www.adidas.com](http://www.adidas.com).

- **ESPN**, the leading multinational, multi-media sports entertainment company featuring a broad portfolio of multimedia sports assets with over 50 business entities: [espn.go.com](http://espn.go.com).

For more information on the EMS club, please visit: [http://sloanems.org](http://sloanems.org).

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*SDM’s Baby Boom!* Five SDM families were expecting babies this semester. From l-r: Julie Mitchell, SDM ’07 and her husband, Paul Mitchell, Jr.; Linda Nguyen, SDM ’07, and her husband, Norbert Malamud; Athar Syed, SDM ’07, and his wife, Nadia Mujahid Syed; Dan Sturtevant, SDM ’07 and his wife, Jessica Sturtevant. Not pictured: Paul Yang, SDM ’07, and his wife, Emily, who was giving birth to their son on this day. As of March 13, four of the babies have been born -- two of them on the same day! (Photo courtesy of Jessica Sturtevant)
Japanese Tea Ceremony Lessons

The Tea Ceremony is the Japanese traditional way of serving and drinking tea. New students are welcome at any time during the semester. Each student will receive individual instruction based on his or her level of experience. The best way to learn the ceremony is to attend lessons on a regular basis. You can also get a tea ceremony certificate from Kyoto Urasenke (School of Tea) of Japan. Mrs. Wada teaches Ryurei-style (seated at a table, rather than kneeling on the floor), too. If interested, you are welcome to observe a class and to speak with Mrs. Wada about lessons. She can be reached at chado@mit.edu. This event takes place Tuesday, March 17, 12:00 p.m. - 4:00 p.m., McCormick Hall, and is open to the MIT community only. Cost is $5 per lesson and $3 for students. Sponsored by the MIT Women’s League.

For more information contact Sis de Bordenave, 617-253-3656, e-mail wleague@mit.edu, or visit: http://web.mit.edu/chado/www/index.html.

MOVIES

NOW PLAYING ON CAMPUS...

Adventureland (2009) A FREE Sneak Preview

Inspired by writer/director Greg Mottola’s own true-life job-from-hell experience, Adventureland stars The Education of Charlie Banks’ Jesse Eisenberg as an uptight recent college graduate who discovers that he’ll have to get a degrading minimum-wage job at a local amusement park instead of spending his summer drinking German beer, visiting world-class museums, and flirting with cute French girls. It’s the summer of 1987, and James Brennan (Eisenberg) has just graduated college. James is all set to embark on his dream tour of Europe when his parents (Wendie Malick and Jack Gilpin) suddenly announce that they won’t be able to subsidize the trip. Now the only things James has to look forward to this summer are sugar-fueled children, belligerent dads, and an endless parade of giant stuffed animals. When James strikes up a relationship with captivating co-worker Em (Kristen Stewart), however, he finally starts to loosen up. Suddenly, the worst summer ever doesn’t seem quite so bad.

This show is a free sneak preview. Admission is limited to the MIT community and guests. An MIT or Wellesley ID is required for receipt of up to two tickets per ID. Tickets will be available beginning at 6:00 p.m. in Lobby 16, in preferred admission order. Arrive early for the best seats.

This show is playing on March 19, at 8:00 p.m. in 26-100. From the Lecture Series Committee website.

(Courtesy of Google Images)
CEO Summit

The CEO Summit “Leadership in the Times of Challenge” panel and networking forum at the Boston Celtics.
Wednesday, March 18, 5:30 p.m. at TD Banknorth Garden, Boston.

From the Calendar section of the Boston Globe.

A Cool Retrofit

The next time you grab a cold pop from a vending machine at MIT Sloan, you can feel good that the School is saving money and electricity. Last Monday, a handful of student volunteers from Sustainability@MIT and Alpha Phi Omega, in conjunction with the Department of Facilities, installed VendingMisers on 20 refrigerated beverage machines in academic buildings across campus.

A VendingMiser is a small sensor which, like a motion detector, senses when a person is standing at the machine, so if no one is in the area for 15 minutes, it will power the compressor down so electricity is not wasted, said Eric Beaton, Energy Manager in MIT’s Department of Facilities. Every three hours, it will power up again briefly to maintain the machine’s base temperature so beverage quality is never affected.

Each VendingMiser can control several machines at once, so even though only 20 were installed, many more machines are affected, according to Adam Siegel, MBA ’09, Co-President of Sustainability@MIT. Facilities purchased the VendingMisers, which are priced around $250 each. Each one saves approximately 40 percent to 45 percent of electricity per machine, which translates to about $250 savings per machine per year, Adam said. “So, it pays for itself in the first year,” he said. In more good news, in using less electricity with the VendingMiser, approximately 3,200 pounds of carbon dioxide emissions are saved each year.

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Additionally, Eric noted that NSTAR provides a $75 rebate for each VendingMiser that is installed at MIT. The vending machine retrofit project started last spring when a group of about 20 students conducted an audit to determine where all of the campus vending machines were located. Facilities then requested the funding, and found a group of students willing to help retrofit the machines. The VendingMiser company presented a brief training session, and the students quickly fanned out to do the retrofits. “In essence, the students saved us labor costs by doing it themselves,” Eric said.

Adam said the students plan to install more when they can. This time around, they only focused on academic buildings on campus, but perhaps down the road, residential buildings at MIT can benefit from the VendingMiser.

—Amy MacMillan

Summer will be here soon! (Photo by Sarah Foote)
10% Postconsumer waste fiber and is Printed on 100# Text manufactured with windpower.

From l-r: Daryl Morey, MBA ’00, General Manager, Houston Rockets; Mark Cuban, Owner, Dallas Mavericks; Dean Oliver, Director, Quantitative Analysis, Denver Nuggets; Mike Zarren, Assistant Executive Director, Basketball Operations and Associate Counsel Boston Celtics; John Hollinger, of ESPN; and Marc Stein, of ESPN.

Ray Allen and ESPN writer Ric Bucher

MIT Sloan Sports Analytics Conference Photos by John Marcus III, MBA ’09 and Geoff Miskinis, SES

Ray Allen (center) and student organizers for the conference

MIT Sloan Dean David Schmittlein

Printed on 100# Text Mohawk Navajo White, which contains 20% Postconsumer waste fiber and is manufactured with windpower.