IEOR

INDUSTRIAL ENGINEERING & OPERATIONS RESEARCH

ALUMNI NEWSLETTER

Fall 2015

Chair's Announcement

Dear alumni, students, colleagues, and friends:

It's an exciting time for Industrial Engineering and Operations Research at UC Berkeley — we're renovating, our professional programs are stronger than ever, and we're educating the next generation of entrepreneurs. Our field is growing — data is everywhere, everyone is looking for better ways to use it. Our faculty and students are continually developing innovative approaches to do this — we have had another productive year, packed with accomplishments.

Over the past year I've read the names of 98 new Industrial Engineers: 38 IEOR undergrads, 8 ORMS undergrads, 13 IEOR Masters Students, 33 MEng students and 6 doctoral students. All of our undergraduate and graduate programs continue to grow in popularity.

Thanks to a generous gift from Pantas Sutardja and Ting Chuk, a key part of the department, the Center for Entrepreneurship & Technology has been renamed to the Pantas and Ting Sutardja Center for Entrepreneurship & Technology. We sincerely appreciate this gift which will help hundreds more students learn to be entrepreneurs and innovators.

Many of you "fondly" remember Etcheverry, with its rundown hallways, bad signs, and poor lighting. Next time you visit, you're in for a surprise. With the leadership and support of our advisory board and alumni, the Etcheverry Hall renovation campaign is nearly complete. Faculty, students, and staff are already enjoying an improved environment specifically designed to foster innovation, collaboration, and learning. And the hallways finally look nice! You will find photos inside this newsletter, and we also encourage you to come visit and see for yourself the next time you are on campus.

Also, inside this newsletter, you can read more about the work of our new faculty member, Javad Lavaei. Javad specializes in control theory, optimization, and power — areas which continue to grow in importance and popularity within our field. We also have three new staff members. Late last year, Rebecca Pauling joined us as department manager, and Yeri Caesar-Kaptoech will be helping our Professional Masters and entrepreneurship students. Most recently, Keith McAleer joined us to focus on communications — this beautiful newsletter is one of his first efforts. Please join me in welcoming everyone.

We held another incredibly successful alumni event, this time in conjunction with the INFORMS annual conference, which was held last year in San Francisco. Nearly 200 alumni joined us for a great night of revelry at Kuleto's near Union Square in San Francisco. We are also working on organizing our next alumni social sometime early next year — details will be coming soon.

If you are not yet a member of UC Berkeley IEOR Alumni LinkedIn group click on the LinkedIn button on the department webpage and make sure to visit and "like" our Facebook page to always be in the know. We're planning more exciting events for the upcoming year, and we'd love to see as many old friends as possible.

Please don't hesitate to contact me at kaminsky@berkeley.edu with comments, questions, industrial project opportunities, or suggestions (and as always, donations are always appreciated, and can now be made on our departmental home page with a credit card).

Go Bears!

Phil

Phil Kaminsky,
Professor, Department Chair

35% female, undergraduate 38% female, graduate
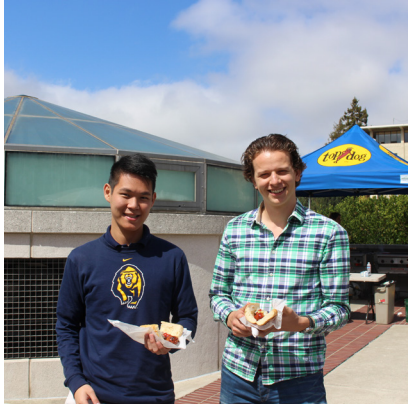
Graduate program ranked 3rd in the USA

124 Undergraduates

3 joint faculty, 15 industry fellows and lecturers, 7 Emeritus

Over 75 undergraduate and graduate courses

75 professional master's degree students

Undergraduate program ranked 3rd in the USA

23 Advisory Board members

16 core faculty

66 Industrial Engineering & Operations Research M.S. and Ph.D. students

Institute of Industrial Engineers

The Institute of Industrial Engineers (IIE) is the world's largest organization supporting individuals involved with industrial engineering and operations research. Below are quotes from current members at Cal.

Albert Gunawan Chandra

Waverly Runion

"A good industrial engineer can make even the most complicated project run like magic. That is exactly what I intend to do for Disney after graduation. I will be able to say that my job is to make kids' dreams come true."

"I did an internship in supply chain management this past summer. Skills and knowledge I learned in IEOR courses at UC Berkeley really helped me to identify, analyze, and solve problems in my internship projects as well as make the right decision.

**Phoebus Fan**

Jerry Cortez

"Just like everyone else coming into college, I had a hard time choosing just one major. Everything is just so cool! In the end though, it's the vast breadth of IEOR that pulled me in. There are so many ways to change the world, whether through consulting, manufacturing, finance, or business management. This world is full of challenges, and with an IEOR education I can tackle any--if not all--of them."

"Zero to one, real quick."

Elisa A. Ramirez
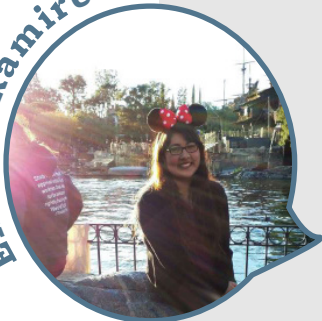
Sherry Zhang

"Five years later, I hope I am at Disneyland making magic."

"My favorite part about being an IIE member is making a welcoming environment so everyone feels comfortable and happy."

Alpha Pi Mu

Alpha Pi Mu (APM) is the honor society for individuals who have shown exceptional academic interest and abilities with industrial engineering and operations research. Below are quotes from current members at Cal.

**Ellen Qi**

Raymond Rudianto

"I'm going into management consulting after graduation and have long term plans to enter private equity. It's in private equity, I hope to implement efficient and large-scale operational changes (utilizing cool IEOR stuff I learned) and deliver tremendous value within companies working in emerging markets, particularly in Southeast Asia."

"APM has helped me get a broader sense of the options open to me as an IEOR major as well as provide professional advice. In the future, I hope to pursue a career in supply chain management, a field I grew to know and enjoy through my four years at Cal through multiple classes and applied projects."

Bowen Ni

Oliviero Figus
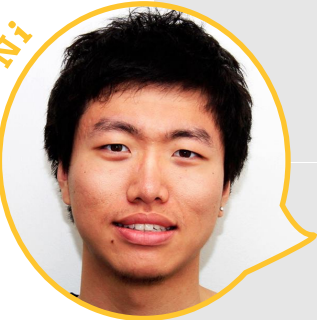
"Moving to Berkeley from Rome, Italy was the greatest decision I have ever made. After three years here on campus I have met amazing people every day and developed a myriad of new skills and tools that I can't wait to take into the world and workspace. I am excited to share my ability to break down complex problems with society, and to devise creative solutions to the challenges I encounter for the rest of my life."

"I plan to change the world to a more efficient place. In term of future career, i am interested in data analysis, supply chain, product management and operations. One of my favorite thing I learned is that machine learning is really cool. My favorite thing about being an APM member is that I have a great group of members that I can help me to explore professional career channel."

Nancy Huang

Dylan Randle

"My goal in life to to be as happy as possible and appreciate every moment of this phenomenal and precious existence on Earth. I would love to get involved in optimizing or applying statistical learning techniques to the healthcare industry. My dream job, however, would be taking people on canoe trips because there is nothing I love more than spending every minute of every day outside."

"Among the diverse fields that people with IEOR degrees go into after graduation, I am personally more interested in data analysis and supply chain management, which the department has offered great courses to provide both academic knowledge and practical experience through group projects. I also appreciate the professional resources and opportunities accessible to members of APM."

JAVAD LAVAEI JOINS BERKELEY IEOR

IEOR is proud to welcome Javad Lavaei to the faculty this year. Javad's work in control theory, optimization, and power will be critical to addressing one of the biggest challenges for our future: How can we best meet the power demands for our planet? Currently, most energy is generated from fossil fuels — a limited resource and large contributor to global climate change. Supplanting fossil fuel sources with renewable energy is a big part of the solution, but for Javad, the answer begins with conserving energy by delivering power to consumers more efficiently.

"The main challenge is that supply should be equal to demand. I cannot produce some

amount of power and ask the consumer to use half of it," remarked Javad. Because there is currently no way to store large amounts of energy efficiently, any power generated must immediately be delivered to consumers — or be wasted.

"If I want to use power here, should I buy it from LA or get it from San Francisco? One

might be cheaper than the other. The basic idea is — how can we make the grid more efficient, optimized, and reliable — and do it every 5 minutes," said Javad. By developing advanced optimization techniques combined with domain-specific knowledge in power systems, Javad's algorithms help efficiently solve large-scale nonlinear resource allocation

> *"The basic idea is — how can we make the grid more efficient, optimized, and reliable — and do it every 5 minutes"*

problems needed to ensure an efficient, reliable and cost-effective way of generating, dispatching and delivering electricity.

Beyond designing algorithms to optimally deliver power, Javad's work in control theory will be essential to making a renewable energy future possible. In a traditional power system, the supply of power is centralized — coming from a nuclear or coal plant, for example. As adoption of solar panels and wind turbines increase, the power supply becomes more decentralized, which creates new challenges for controlling the delivery of power.

"Having a modest number of solar panels and wind turbines [in the system] is okay because that is not a game changer, but if everyone is using a solar panel, the supply part is very random. And the question is how can we make sure that this is not random — that it is following demand," said Javad. That supply from renewables is highly variable makes sense. What happens when a cloud suddenly blocks the sun in Berkeley or it's an especially windy day in Minnesota? Javad's

research in control theory focuses on how the system can adapt to meet demand under these uncertain conditions.

And if these challenges do not sound like enough, there is at least one more for Javad to consider when architecting control systems — security. "If we do some type of control over the internet or communication network... what happens if someone tries to mess with it and tamper with the data? People have different incentives to do this. Some people want to take the grid down, some people might be suppliers that want to manipulate the price. So what kind of algorithm can I use to detect tampering with data and also take action against it?"

In a world increasingly reliant on technology — and the power that drives it — Javad's work will be indispensible to meeting the energy demands of the future. ∎

For more information about Javad's work visit: ieor.berkeley.edu

PROF. KEN GOLDBERG ON THE NEW "PEOPLE AND ROBOTS" INITIATIVE

Cloud Robotics, Deep Learning, Human-Centric Automation, and Bio-Inspired Robotics are primary research themes in the CITRIS "People and Robots" Initiative launched this summer with over 75 faculty from 4 campuses, headed by IEOR Professor Ken Goldberg. Ken is convinced that recent innovations in sensors, networks, optimization, and machine learning have enormous potential to reduce drudgery and improve human experience in healthcare, manufacturing, transportation, safety, and a broad range of other applications. He argues that the research needed to achieve these advances will require rigorous theory evaluated on standard benchmarks, modular systems built on shared software toolkits, and sensitivity to human factors.

Ex Machina is one of many recent Hollywood films to illustrate what happens when humans meddle with creating intelligent beings that they are ultimately unable to control. The idea of the Singularity — a point in time where computing power exceeds human intelligence — is provoking alarm in popular culture as technology becomes more powerful and connected to daily life.

> *"Science-fiction is fun but is sometimes treated as near-term prediction. I believe it's important to balance it with reality."*

Ken points out that this story isn't new: "It goes back to Prometheus, who stole fire from the gods. Prometheus was punished by being chained to a rock with an eagle eating his liver. Whenever technology advances, people fear the consequence, and that runs very deep in our culture."

In the case of the Singularity, part of the fear comes from a misunderstanding about the kinds of things that are easy or difficult for a machine to do. Moore's law – the observation that computer processing power doubles approximately every two years – has often been cited as evidence of the rising power of machines and makes the vision of human-like robots seem plausible in the near future.

But Moore's Law can't continue indefinitely and Ken points out that fast computing doesn't necessarily equal human-like intelligence. "In terms of creativity — being able to innovate or create an interesting algorithm, product design, story, or poem — computers are nowhere near achieving that."

"Humans are amazing. We make use of very slow and precise sensors. We are able to reliably perform extremely dexterous things. We're creative. I'm excited about the potential for machines and humans to work together."

Ken proposes the concept of "Multiplicity" as an emerging category of systems where diverse groups of humans work together with diverse groups of machines to solve difficult problems. Multiplicity combines results in collective intelligence and cloud computing, building on research in ensemble learning, big data, and open-source software.

Instead of a future where robots emulate and compete with humans, Multiplicity considers a future where humans and robots use their unique skills to tackle problems side-by-side. "One person trying to solve a problem may succeed, but generally you get a group together with the right conditions, they can often times have better ideas collectively. The trick is — how do you pick the right people to put together? If you just take the smartest people and put them in a group, it doesn't always solve the problem better than a group that has diversity. You also need someone who can understand the social dynamic of the group. You have some people who are very brilliant but not very sociable or good at playing with or working with others.

"This is related to results in ensemble learning, where a diverse group of algorithms is provably better than any single algorithm at classification. One example is Google's search engine. Thousands of computing nodes continuously use input from millions of users to optimize search results." Ken emphasizes the need for new research to discover how to effectively combine the efforts of groups of people with that of groups of machines. Ken and his students are pursuing research in surgical robotics and grasping where robots learn from human demonstrations in the Automation Sciences Research Lab. ▪

IEOR Alumni Profiles

What do students do after graduating from Berkeley IEOR?
Check out these profiles to see what alumni have been up to.

Ryan Panchadsaram
B.S. IEOR 2007

Currently: *U.S. Deputy Chief Technology Officer* at **The White House**

What was your first job ever?
I picked up coding and designing pretty early on thanks to my Dad. I remember building small web and multimedia projects for people who were willing to pay a middle schooler..

What did you do after graduation?
After college I joined Microsoft as a Program Manager. I spent my time there on two teams: the Online Services Division then the Office for Mac team.

What are you currently working on?
Right now, I work at the White House where I serve as the Deputy Chief Technology Officer for the United States. My team helps shape how an $80 billion budget can be used by federal agencies to deliver on their missions in a more effective, design-centric, and data-driven way.

Do you have any advice for current IEOR students?
Stay curious. Be creative. Pursue your passion projects. And at one point in your career, considering doing a "tour of duty" in government. You'll find that you'll be able to have impact at scale and tackle problems that are incredibly meaningful to the American people.

What do you miss about being a student at Cal?
I miss the energy of the campus and how it encouraged every student to express themselves, whether that was through activism or building something.

Nirmal Govind
M.S. IEOR '99

Currently: *Director of Streaming Science & Algorithms* at **Netflix**

What did you do after graduation?
After graduation, I worked on the Competitive Semiconductor Manufacturing program at Berkeley, did a part-time stint at IBM's semiconductor manufacturing facility (fab) in New York while finishing up my PhD at Penn State, then moved to Arizona to work at Intel, optimizing Intel's fab operations. I then moved back to the bay area and worked at a healthcare startup in the valley before joining Netflix.

What are you currently working on?
I lead the Streaming Science & Algorithms group at Netflix. We use data to build machine learning models and algorithms to improve the quality of experience while streaming, i.e. after you hit play on Netflix. We work on a diverse set of problems from optimizing the streaming quality on the Netflix app to improving the digital supply chain that starts with the studios in Hollywood.

What do you miss about being a student at Cal?
Being a grad student at Cal was an amazing experience. It was great to have the opportunity to take classes on a wide variety of topics from experts in those fields. The MOOCs today are great, but the experience is different.

Do you have any advice for current IEOR students?
Be curious, ask questions, and keep learning!

Gordon Rios
M.Eng. '02

Currently: *Principal Scientist* at **Pandora Media**

What was your first job ever?
Math tutor, MESA (http://mesa.ucop.edu), at Albany High School.

What did you do after graduation?
After graduating from IEOR I returned to full time work at Inktomi Corp. (one of the early search engine companies) which was founded by Prof. Eric Brewer from UCB.

What are you currently working on?
I'm currently working on machine learning- based recommender systems for radio. My work also includes mentoring and collaborating with a team of data scientists.

Do you have any advice for current IEOR students?
Operations research is one of the most powerful disciplines for working in data science today; yet, there are relatively few working in technology — your IEOR training, along with additional courses in Machine Learning, will allow you to write your own ticket. At Pandora, we have a thriving data science team and we'd be happy to see you here :D

What do you miss about being a student at Cal?
Campus life ... study groups with my friends ... going to social events ... the support from other students and my advisor (Prof. Stuart Dreyfus).

Tzi-Kei Wong
B.S. IEOR '97

Currently: *Senior Director, Product Management* at **BrightEdge**

What was your first job ever?
IBM, Staff Engineer responsible for implementing global logistics operations and optimizing finished goods inventory across JIT distribution centers.

What are you currently working on?
Heading up marketing analytics and platform strategy for BrightEdge.

What do you miss most about being a student at Cal?
Learning as much as possible and appreciating the projects and real-world experiences offered through the IEOR classes. Getting access to a world-class network of employers, and building confidence as a female, minority engineering student.

Do you have any advice for current IEOR students?
Trust your instincts — they are usually right. Stay hungry, stay curious. In 20 years, you'll understand why.

Interested in sharing your story with other alumni?
*Contact Keith McAleer at **kmcaleer**@**berkeley.edu***

Gift from Pantas Sutardja and Ting Chuk Renames the Center for Entrepreneurship & Technology

The Center for Entrepreneurship & Technology at Berkeley Engineering celebrated its 10-year anniversary on April 21, 2015 by announcing a generous gift from Pantas Sutardja and Ting Chuk. The gift will help hundreds more students invent products, start companies, and chart their course as industry innovators.

The benefactors, both graduates of Berkeley Engineering, have initiated a challenge to any donor to match their gift to the Pantas and Ting Sutardja Center for Entrepreneurship & Technology. The new gift will extend the Sutardja Center's course offerings to a broader range of students, from first-year undergraduates to graduate students. The gift will also open up the Sutardja Center's Venture Lab incubator to more student-led initiatives.

"We are profoundly grateful to Pantas and Ting for investing in the aspirations of our students," said S. Shankar Sastry, Dean and Carlson Professor of Engineering. "Their generosity will magnify the impact of our students' career paths by fostering entrepreneurial practice and by translating technological expertise into marketplace innovation."

The center began as a single course in 2005 and developed into a robust program of courses and lectures that now serve more than 1,000 students each semester. It has led dozens of successful student startups throughout the years. Among them is Eko Devices, which recently closed $2 million in-funding for its digital stethoscope attachment.

Professor Ikhlaq Sidhu, Director Ken Singer, and IEOR Department Chair Phil Kaminsky designed the "Berkeley Method of Entrepreneurship" to teach students how to launch and sustain technology ventures. Lauded as a national model by the National Science Foundation, the curriculum uses game-based learning to encourage an entrepreneurial mindset.

Pantas Sutardja (B.S. '83, M.S.'85, Ph.D. '88 EECS) is the cofounder of Marvell Technology Group, a semiconductor company with operations worldwide. Ting Chuk (B.S. '85 EECS) was a design engineer at Rockwell and Xerox, among other companies. The two are active in the life of the College of Engineering and were cornerstone benefactors to CITRIS (the Center for Information Technology Research in the Interest of Society), a multi-campus institute headquartered at Berkeley Engineering. Their two sons are currently undergraduate students in the college.

"We heard about the CET program and were so curious to learn more about it that we sat in on one of their classes," said Pantas Sutardja. "We were very impressed with the enthusiasm of all the students and their ability to articulate and present their projects. Berkeley has such strong academic credentials. We hope that our support will enable more Berkeley students to take what they learn here and create a culture of innovation wherever they go." ∎

Facebook Chief Security Officer, Alex Stamos joins Sutardja Center's Newton Lecture Series

What's it like keeping users safe on the world's largest social media network?

Alex Stamos, Chief Security Officer at Facebook, joined The Sutardja Center's Newton Lecture Series to discuss entrepreneurship and the modern challenges of cybersecurity in a fireside chat with UC Berkeley Professor Vern Paxson.

Stamos, a Sacramento native, graduated from Berkeley with a degree in EECS in 2001. After working at midsize startups, Stamos saw an opportunity to found his own company. "The most important part of starting a company is to do it with people you like. My partners and I were all in different parts of our lives, but we were all in the situation where we thought –

this is our chance, let's roll the dice."

For Stamos, the gamble paid off. He went on to co-found iSec Partners, a San Francisco-based security consulting firm which was acquired by NCC group in 2010.

The Sutardja Center's First 10 Years: Milestones

2005 — With Ikhlaq Sidhu at the helm, the **Center for Entrepreneurship & Technology** opens, offering one course to engineering undergraduates.

2007 — Enrollment scales up to hundreds of undergraduates per year.

2008 — The **Venture Lab**, an incubator for student start-ups, opens. While not taking an equity stake or providing seed funding, the Venture Lab offers guidance and mentoring on taking an idea to market, from developing a business plan to finding capital.

2009 — The **Global Venture Lab** launches, bringing together entrepreneurship educators, researchers and practitioners from worldwide academic institutions.

2010 — The center formulates a teaching curriculum that integrates depth in technical knowledge with breadth in management and business skills, leading to the launch of Berkeley Engineering's **Fung Institute for Engineering Leadership**.

2011 — The center launches the **Engineering Leadership Professional Program**, a Silicon Valley offering that prepares top-performing engineers for executive roles.

2012 — **SkyDeck**, one of the first research university startup accelerators, opens in Berkeley, building on the Venture Lab's model of fostering entrepreneurship through industry engagement.

2013 — The center's **Berkeley Method of Entrepreneurship** gains international recognition as a successful model for teaching technology entrepreneurship.

2015 — The naming of the **Pantas and Ting Sutardja Center for Entrepreneurship & Technology** recognizes the cornerstone commitment of benefactors **Pantas Sutardja** and **Ting Chuk**.

The Sutardja Center is moving to a new home at California Memorial Stadium

The Sutardja Center is preparing to move to a new location on the plaza level inside California Memorial Stadium, 210 Stadium Rim Way, next to the Haas School of Business. The space will be the home of the Sutardja Center's Innovation Collider, which will host a set of experiential learning and applied research activities in collaboration with Global Universities, Industry Leaders, and Investors. ∎

VMware Hosts Engineering Leadership Alumni Gathering in Palo Alto

On Thursday, September 24th, VMware in Palo Alto, California hosted alumni from the Sutardja Center's Engineering Leadership Professional Program. Over 60 professionals from Yahoo!, Samsung, Ericsson, Google, NetApp, Juniper, Applied Materials, Lam Research and numerous other Silicon Valley companies were in attendance.

All enjoyed the beautiful venue of the VMware campus, as well as the many drinks and appetizers. The group was also joined by Kit Colbert, VP & CTO, for VMware's Cloud-Native Apps, who gave an overview of VMware's evolution of virtualization for compute and storage resources. ∎

Berkeley Engineering Leadership Professional Program (ELPP)

Held in Silicon Valley

A Non-MBA alternative to Technology Firm Leadership

NOW ACCEPTING APPLICATIONS FOR SPRING 2016

visit scet.berkeley.edu/elpp

FUNG INSTITUTE HOLDS 3RD ANNUAL CROWDFUNDING SYMPOSIUM

In 2015, it is estimated that $17 billion will be raised through crowdfunding on over one thousand platforms, representing approximately a 200% increase since 2012 (source: TABB Group). Kickstarter and Indiegogo are still favorite sites for entrepreneurs working to raise money, but crowdfunding is also being used in exciting new ways — such as to finance debt or fund charitable efforts.

It was in this context that the Fung Institute for Engineering Leadership at UC Berkeley hosted its 3rd annual symposium to share research on the current state of crowdfunding. Reflecting the increasing breadth of its uses, researchers presented on topics ranging from the rise of crowdfunding syndicates — platforms such as AngelList that help top venture capitalists source more capital to invest in startup ventures — to analysis of biases in Airbnb's online review systems.

One pair of entrepreneurs in attendance, Nancy Curtis and Don Zacher of T3 TigerTech, are exploring crowdfunding as a mechanism to drive their new invention, WaterSeer H2O, a device that uses condensation from the air to create potable water.

"Over 350 million people do not have access to clean and safe water in Africa. Women and children walk for 4-6 hours a day to acquire water for drinking, cooking, and cleaning — water which in many cases is not sanitary,"

Nancy explained. Ultimately, the goal for Nancy and Don is to use crowdfunding and micro-lending to empower entrepreneurs in countries where clean water is most scarce.

To help academics better understand how crowdfunding might help entrepreneurs like Don and Nancy, the Fung Institute announced

Nancy Curtis and Don Zacher of T3 Tigertech are using crowdfunding to launch their social enterprise.

that it will soon be launching a new platform to give researchers access to crowdfunding data. Initially, the platform will provide data from Kickstarter, Indiegogo, and FundRazr. The data will include information about what kinds of projects are being funded, who is funding the projects, and how much money is being invested. The new platform was created with support from the Kauffman Foundation, and will be provided to researchers for free to help them better understand how crowdfunding works.

"Our aim at the Fung Institute and CrowdBerkeley is to build a database that

informs scholarship and policy decisions, and which in turn, empowers entrepreneurs to build their businesses and make a difference in the world. The problem now is that each scholar needs to build or buy their own database, which makes replication costly and slows down our investigation of a very rapidly changing and growing phenomenon. The hope is that CrowdFunding will turbocharge entrepreneurship -— it's our job to see if that's happening," said Fung Institute Faculty Director, Lee Fleming. ∎

For more information, visit **http://funginstitute.berkeley.edu/** *and* **http://crowd.berkeley.edu**

SHMUEL OREN WINS INFORMS 2015 BEST PUBLICATION AWARD

Congratulations to Shmuel and alum Tony Papavasiliou for winning the INFORMS Section on Energy, Natural Resources, and the Environment (ENRE) Best Publication Award for 2015 for their paper "Multi-Area Stochastic Unit Commitment for High Wind Penetration in a Transmission Constrained Network". ∎

Our Graduates

B.A. Operations Research & Management Science

Fall 2014

Vijay Krishnan Sridharan
Yi Zhou

Spring 2015

Yi Cai
Yixin, Guo
Kevin Maxwell Vale
Kaitlyn Paul Waugh

Summer 2015

Ryan James Runchey
Jiyu Zhao

B.S. Industrial Engineering & Operations Research

Fall 2014

Narek Akopyan
Karen Chien
Elaine Elaine
Ioannis Kremitsas
Tian Liu
Chirat Vibhagool
Guo Yu

Spring 2015

Matthew Wesley Burke
Giscielle Carlisa
Zisong Chen
Charles Patrick Custer
Tanupatr Darakananda
Allen Fang
Anjali Lalita Gopal
Heidy Johanys Jimenez Pinto
Vishal Kapadia
Jeyda Deniz Kaynatma
Suman Koirala
Jonathan Jinhee Lee
Pong-Yu Lee
Minchao Lin
Winston Li Long
Ramond Steven Ma
Shir Nehama
Jong Myung Park
Haochen Shan
Akash Ashok Sharma
Michael John Signorotti
Philip Su
Stephen Sun
Rohan Dilip Sunthankar
Alexander Blake Turney
Duy Hong Vo
Aaron Robert Wong
Ying Yang
Ivan Yung

Summer 2015

Ami Bigit
Travis Jay Dunlop
Mellisa Luis
Kyle Alexander Ong

Master of Engineering

Fall 2014

Chen, Jou-An

Spring 2015

Zied Alaoui
Meyssane Alj Hakim
Leonard Berrada
Nathan Berrebbi
Rishabh Raj Bhargava
Yuntian Bi
Jason Boada
Amanda Karen Brief
Po Shuen Portia Chan
Kevin Chiu
Yvan Fonhoue Naoussi
Yunchuan Gu
Helene Hillion
Chi-Hua Huang
Angadhjot Hundal
Yuxin Lai
Oren Lavie
Robert Austin Lee
Sherrie Lim
Yuxin Lin
Chi Ma
Rebecca Menke
Louis Millon
Kevin Olivier
Francisca Quense Escobar
Dylan Rhode
Mehdi Rifai
Subramanian Shankar
Xiaoyi Wang
Yuxing Wei
Tianye Yao
Yue Zhang

Master of Science

Fall 2014

Jared David Joseph Bauman
Cheng Lu
Guang Yang

Spring 2015

Ying Cao
Alison Nicole Cliff
Hao Fu
Sean Paul Harris
Sheng Liu
Valentin Marek
Zachary John Mulder
Rebecca Sarto Basso
Quico Pepijn Spaen
Michael Young Suey
Yingzi Tian
Renyuan Xu
Kai-Chuan Yang
Nan Yang
Gene Yi

Ph.D.

Spring 2015

Long He
Te Ke
Chen-Nan Liao
Zhao Ruan

Summer 2015

Yuan Mao
Kai-Chuan Yang

Etcheverry renovations nearly complete

Thanks to generous support from our advisory board and alumni, our Etcheverry Hall renovation campaign is almost finished. Improvements include a new student lounge, renovated graduate student offices, hallway improvements, and new bathrooms.
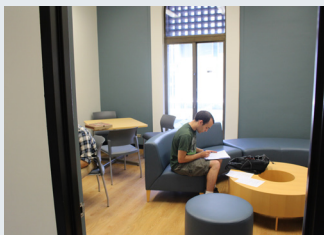
IEOR students enjoying the new student lounge

DIRTT breakout rooms help students collaborate and instruct

Renovated graduate student offices

Hallway improvements include new floors, paint, and hydration station

When asked how the computer security field has changed since he graduated from Berkeley, Stamos said, "In 2001 [a lot less people] had internet access. For those people, the internet was like a fun thing where you could do some research, do some reading. And now the internet is a critical part of the lives of close to 3 billion people. When the Morris worm happened [in 1988], and the entire internet shutdown, nobody died. That would not be true today if the internet just stopped working, or if we had a worm that infected 90% of internet connections. People would die, or people would lose their jobs, or there would be mass chaos."

As the internet becomes more intertwined with every aspect of daily life, the responsibility of computer security professionals like Stamos has grown. Additionally, the challenge of keeping users safe has become increasingly difficult as more people get online around the world for the first time.

"The median internet user lives in a developing country that is either not a democracy, or is a democracy without a very good human rights record. They are accessing the internet through a very cheap smartphone…they have no experience with the computing metaphors that we have all grown up with. Metaphors like how password reset works – or [even] the idea of the password."

At the end of the lecture, a student asked, "What habits and qualities do you think set you apart in the CS world?"

Stamos gave a very appropriate answer. "Self-reliance, right? Being able to get stuff done on your own is the one of the most important aspects." ∎

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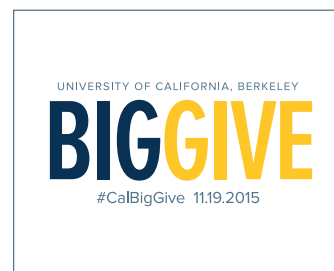
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