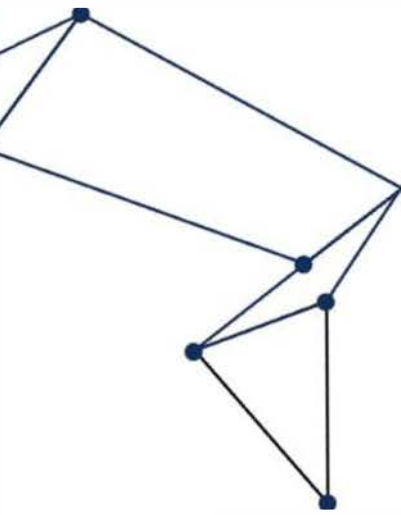




Silicon Valley Innovation Leadership

October 28 - November 1, 2019
UC Berkeley Sutardja Center for Entrepreneurship & Technology



About UC Berkeley

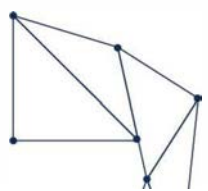
UC Berkeley is ranked the #1 public university and the #4 global university by US News and World Report with 7 Nobel prizes held by current faculty, 77 faculty Fullbright scholars, 170 academic departments and programs, and over 25,000 undergraduates and 10,000 graduate students.



About the Sutardja Center

The Pantas and Ting Sutardja Center for Entrepreneurship & Technology (SCET) is the premiere institution on the UC Berkeley campus for the study and practice of "technology-centric" entrepreneurship and innovation. Since 2005, the Sutardja Center has created the foundation of Berkeley's entrepreneurship ecosystem including **SkyDeck**, the **Fung Institute**, the **Engineering Leadership Professional Program**, **Global Venture Lab**, and an extensive ecosystem of Silicon Valley and Global partners.

The Sutardja Center is also known for developing the **Berkeley Method of Entrepreneurship (BMoE)** & **Berkeley Method of Innovation Leadership (BMIL)**, internationally recognized approaches to teaching technology entrepreneurship for undergraduates, innovation for Ph.D. students, and technology firm leadership for professionals and executives. As part of the Berkeley Innovation ecosystem, SCET also collaborates closely with the Jacob's Institute for Design, the Haas Business School, SkyDeck Accelerator, and CITRIS Foundry.



SYLLABUS DAYS 1-3

October 28, 2019	October 29, 2019	October 30, 2019
BERKELEY INNOVATION ENGINEERING & LEADERSHIP, DESIGN, & ECOSYSTEM SITE VISITS	EMERGING TECHNOLOGIES, INNOVATION LEADERSHIP & BERKELEY ECOSYSTEM SITE VISITS	EMERGING TECHNOLOGIES, INNOVATION ENGINEERING MASTER CLASS, & ECOSYSTEM SITE VISITS
8:00 AM Check-In with light breakfast in Banatao Auditorium in Sutardja Dai Hall	8:15 AM Check-In with light breakfast 8:45 AM Recap and overview in Banatao Auditorium in Sutardja Dai Hall	8:15 AM Check-In with light breakfast 8:45 AM Recap and overview in Tamalpais Rm., David Brower Center
8:30-10:30 AM INNOVATION ENGINEERING FRAMEWORK INTRO and PART I: PROBLEM & SOLUTION Dr. Ikhlaq Sidhu, Chief Scientist & Founding Director, SCET	9:00-10:30 AM EMERGING TECHNOLOGIES BLOCKCHAIN Alex Fred-Ojala, Data Scientist & founder, Predli	9:00-10:30 AM EMERGING TECHNOLOGIES AI & ROBOTICS Dr. Pieter Abbeel, CS and co-founder, covariant.ai
10:30 AM - NOON INNOVATION ENGINEERING PART II: EXECUTION WHILE LEARNING Dr. Ikhlaq Sidhu, Chief Scientist & Founding Director, SCET	10:30 AM - NOON INNOVATION LEADERSHIP: CREATING A CAMBRIAN EXPLOSION WITH YOUR VENTURE Chris Larsen, cofounder, Ripple , in conversation with Alison McCauley, best-selling author of UNBLOCKED: How Blockchains Will Change Your Business with Alex Fred-Ojala moderating	MASTER CLASS, INNOVATION ENGINEERING Dr. Ikhlaq Sidhu, Chief Scientist & Founding Director, SCET 10:30 AM- NOON
12:00-1:00 PM LUNCH	12:00-1:00 PM LUNCH	12:00-12:30 PM LUNCH
1:00-2:30 PM DESIGN REIMAGINED Anne Fletcher, Instructor, SCET	1:00-2:00 PM EMERGING TECHNOLOGIES AI & MANUFACTURING Dr. Grace Gu, UC Berkeley	1:00-2:30 PM INNOVATION FIELD STUDY J Labs of Johnson & Johnson Jeff Calcagno, Head of San Francisco Bay Area
3:30-5:00 PM INNOVATION FIELD STUDY Lucidworks	2:00-3:00 PM EMERGING TECHNOLOGIES GENE EDITING Dr. Fyodor Urnov, "genome editor", UC Berkeley	2:45-5:00 PM INNOVATION FIELD STUDY Unity Technologies Danny Lang, VP of AI and Machine Learning
6:15-7:30 PM INNOVATION FIELD STUDY Lime	3:00-4:30 PM BERKELEY INNOVATION LAB VISITS Option 1 - Innovative Genomics Institute (IGI) , Center for CRISPR breakthrough Option 2 - Gu Research Group - Making additive manufacturing more accessible, economical, and ubiquitous	
	Break (Team formation for non-DTU attendees)	
	6:30 PM in UCB Li Ka Shing Center, Rm. 245 NEWTON INNOVATOR KEYNOTE Marc Tarpenning, Co-founder, Tesla	

Syllabus Days 4-5

October 31, 2019	November 1, 2019
FRAMEWORK, IDEATION, DISRUPTION & PROJECT WORK	PROJECT WORK, SHOWCASE & CLOSING SPEAKER
8:15 AM Check-In with light breakfast 8:30 AM Recap and overview in Banatao Auditorium in Sutardja Dai Hall	8:15 AM Check-In with light breakfast 8:30 AM Recap and overview in Banatao Auditorium in Sutardja Dai Hall
8:40-9:30 AM INNOVATION LEADERSHIP FRAMEWORK New Venture Fundamentals Gigi Wang, Industry Faculty & Chair of the Berkeley Method of Entrepreneurship	9:00 AM-NOON GROUP PROJECT TIME & PRESENTATION PREPARATION Gigi Wang, Instructor & Chair of the Berkeley Method of Entrepreneurship
9:30 AM-12:15 PM PROJECT IDEATION with pre-formed TEAMS Gigi Wang, Instructor & Chair of the Berkeley Method of Entrepreneurship	
12:15- 1:00 PM LUNCH	12:00-12:30 PM LUNCH
1:00-2:00 PM INNOVATION LEADERSHIP: DISRUPTION FOR STARTUPS AND FORTUNE ORGANIZATIONS Mai Le, Engineering Leader, Uber	12:30-3:30 PM GROUP PRESENTATIONS Gigi Wang, Instructor & Chair of the Berkeley Method of Entrepreneurship
2:00-5:00 PM PROJECT TIME Gigi Wang, Instructor & Chair of the Berkeley Method of Entrepreneurship	3:30 - 5:00 PM SUSTAINABLE OPEN INNOVATION & CLOSING THOUGHTS Dr. Robert Strand, Haas Center for Responsible Business
	5:00-6:00 PM REFRESHMENTS followed by 6:00-7:30 PM DINNER UC BERKELEY FACULTY CLUB



SYLLABUS:

Silicon Valley Innovation Leadership Intensive Program at UC Berkeley

This program explores key management and leadership concepts at the executive and leadership levels that are relevant to innovation in public and private organizations. The concepts taught in this intensive 5-day course are meant to convey judgment, insight on emerging technologies, and inspire new thought processes about innovation.

During the course, students learn from actual business situations from the leaders who successfully implemented innovation and change. Topics for the course include: opportunity recognition, effective R&D for innovation, new business models and disruptive technologies on the near-term horizon from thought leaders on UC Berkeley faculty and from industry. Guest lectures from renowned Silicon Valley innovators and UC Berkeley research innovators (incl. Marc Tarpenning of Tesla, Chris Larsen of Ripple and Prof. Pieter Abbeel of covariant.ai) provide a firsthand perspective on the Silicon Valley industry and culture. In addition to theory, lectures and cases, the critical aspects of entrepreneurial mindset will also be covered. This course includes a parallel group project to further illuminate concepts learned and potential industry changes as well as two afternoons of on-site visits to top Silicon Valley/ San Francisco companies (e.g. Unity Technologies and Lime-S) and a corporate start-up accelerator (e.g. Johnson & Johnson's JLABS).

Lead UC Berkeley Instructors

Prof. Ikhlāq Sidhu, Chief Scientist & Founding Director, Sutardja Center for Entrepreneurship & Technology
Gigi Wang, MS, MBA, Chairwoman Berkeley Method of Entrepreneurship, Sutardja Center for Entrepreneurship & Technology

Resources & Pre-Class Assignments

- All presentations & handouts will be provided via a Google Drive shared folder.

Group Projects (For Core Leadership Track)

Projects are designed for participants to analyze organizational and strategic situations for private firms or government organizations from an innovation leadership perspective. Options for group projects will be provided to students separately from this syllabus.

Class Participation

Program candidates are expected to participate in class, as interaction is a key learning element in the Berkeley Method of Innovation Leadership. Participation is based on the quality of response not quantity.



Ikhlāq Sidhu
Chief Scientist and
Founding Director



Victoria Howell
Director, Executive
Programs
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Kristin Shopp
Program Manager
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Speaker Bios



Ikhlaq Sidhu, Chief Scientist and Founding Director

Ikhlaq Sidhu is the Chief Scientist and Founding Director of UC Berkeley's Sutardja Center for Entrepreneurship & Technology. He received the IEOE Emerging Area Professor Award from his department at Berkeley. Prof. Sidhu founded the Fung Institute for Engineering Leadership. He serves as the faculty director of the Engineering Leadership Professional Program (ELPP). His research areas include systems and stochastic models, strategic data analytics, and learning models.



Anne Fletcher, Lecturer in Entrepreneurship and Design

Anne Fletcher has devoted the better part of her career trying to understand what people want. After graduating from Stanford University's Product Design Program in 2007, Fletcher spent several years in product design before returning to Stanford as an educator in the same field in addition to pursuing many of her own ventures as a design researcher and product designer. In her upcoming Product Design and Needfinding Challenge Lab, Anne intends to work with students to uncover the social, cultural, and technological nuances that may help designers build better alternatives.



Alex Fred-Ojala, Research Director, Data X-Lab, Sutardja Center

Alexander Fred-Ojala is a world-class expert on emerging technology business applications specializing in AI, data science, and blockchain technology. He is the Founder & CEO of Predli a global emerging technology advisory firm. He is also the Chief Data Scientist and Research Director at UC Berkeley's Center for Entrepreneurship & Technology, and for three years he was a data science and blockchain instructor in the College of Engineering at UC Berkeley -- the #1 public university in the world. Alexander was awarded Amazon's prestigious Innovation Fellowship 2018-2019.



Chris Larsen, Executive Chairman, Ripple

Chris Larsen is Executive Chairman of Ripple's board of directors and former CEO and co-founder of Ripple. Prior to Ripple, Chris cofounded and served as CEO of Prosper, a peer-to-peer lending marketplace, and E-LOAN, a publicly traded online lender. During his tenure at E-LOAN, he pioneered the open access to credit scores movement by making E-LOAN the first company to show consumers their FICO score.



Alison McCauley, Speaker, Advisor, Author

Alison has been helping pioneers navigate the intersection of human behavior and emerging technology for over two decades. A social scientist by training, Alison has advised executives on the adoption and communication of emerging technology across industries as diverse as healthcare, education, telecommunications, energy, retail, finance, hospitality, and manufacturing over a twenty year strategy consulting career.



Grace Gu, Assistant Professor of Mechanical Engineering, UC Berkeley

Part of the Mechanical Engineering faculty at UC Berkeley, Professor Gu has conducted pioneering work in the field of additive manufacturing, including recent work on a self-correcting 3D printer. Gu has been involved in additive manufacturing for the last 5 years, and joined the UC Berkeley faculty of Mechanical Engineering in 2018 after finishing her PhD.



Fyodor Urnov, Adjunct Assistant Professor of Molecular Biology, UC Berkeley

Fyodor Urnov is a "genome editor" — he works on genetically engineering human cells to understand and treat disease. He teaches genetics and biochemistry, and is a team leader and senior scientist at Sangamo BioSciences. He is also Deputy Director at the Altius Institute for Biomedical Sciences, where he shares broad responsibility for defining and leading the overall scientific effort.

Speaker Bios cont.



Marc Tarpenning, Co-Founder, Tesla Motors

Marc Tarpenning is a member of the advisory board at Clearpath Robotics, a manufacturer of unmanned vehicles for industrial research and development applications. Previously, he was a mentor at Greenstart and an entrepreneur in residence at Mayfield Fund. Prior to that, he co-founded and served as the vice president for engineering at Tesla Motors. He also held executive positions at Packet Design, NuvoMedia, and Gemstar-TV Guide. Tarpenning holds a bachelor's degree in computer science from the University of California, Berkeley.



Pieter Abbeel, Professor in Artificial Intelligence & Robotics

Pieter Abbeel is Professor in Artificial Intelligence & Robotics and Director of the Robot Learning Lab at UC Berkeley since 2008, he's also Co-Founder of Covariant.AI since 2017 and Co-Founder of Gradescope.com since 2014, Advisor to OpenAI, Founding Faculty Partner at the Venture Fund AI@TheHouse, advisor to a half dozen AI/Robotics start-ups, and frequently gives exec-level lectures on latest trends in AI.



Danny Lange, VP of AI and Machine Learning, Unity Technologies

Danny Lange, formerly of Uber, Amazon, Microsoft, and IBM, is now bringing the wonders of AI and Machine Learning to the world of gaming and AR/VR. He is a skillful engineering leader who favors agile development with a strong drive for daily progress. He was also the founder of Vocomo Software in 2001, which was acquired by Google in 2005. Accomplished author and speaker; author of numerous patents. He holds a Ph.D. in Computer Science from DTU.



Gigi Wang, Industry Faculty & Chair of Berkeley Method of Entrepreneurship

Gigi Wang is a leader in global entrepreneurship and innovation and heads up MG-Team, LLC, a consulting firm focusing on global entrepreneurship, innovation and business development. She is a Chair Emeritus of the MITEF/Stanford Venture Lab (VLAB) and also on the advisories board of US Market Access, Mobility Ventures, iGlobe Partners and several EU entrepreneurial workgroups. She holds a BS & MS in Engineering from Stanford and an MBA for Haas Business School at Berkeley.



Mai Le, Engineering Leader & Board Advisor, OmniLife.ai and Uber

As a technology and business operations global executive with 20+ years' experience, Mai Le specializes in driving nimble, high business growth for startups and Fortune organizations through state-of-the-art technology solutions, keen people leadership and strong business acumen. She has built diverse, high-performance teams at Uber, Yahoo, Walmart, Microsoft and Symantec. She holds an MBA and a Bachelors in Computers Information Systems from California State University.



Robert Strand, Executive Director, Haas Center for Responsible Business

Robert Strand is the Executive Director at the Center for Responsible Business at Haas, UC Berkeley, as well as an Associate Professor at his alma mater, Copenhagen Business School, where he teaches corporate social responsibility (CSR) and sustainability with application to leadership and strategic management. In his research, Robert explores corporate responsibility and CSR organization within corporations and their associated key performance indicators (KPIs).



Thank you!



Berkeley
ENGINEERING
EXECUTIVE & PROFESSIONAL EDUCATION

