

# UC Berkeley

## The 150 Women Project - Holding Series

### Title

College of Engineering: 150 Years of Women in Engineering

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# 150 years of women in engineering

This year, along with the entire Berkeley campus, the College of Engineering is celebrating the 150th anniversary of the University of California's 1870 resolution: "That young ladies be admitted into the University on equal terms in all respects with young men." The act came just two years after the university's founding, while many elite East Coast universities waited until the late 20th century to admit their first women students. Just six years after the resolution was enacted, Berkeley Engineering had its first female graduate: Elizabeth Bragg, the first woman to receive a civil engineering degree from an American university



Today, our female faculty, students and alumni are at the cutting edge of our work at Berkeley Engineering: holding tenured positions, serving as mentors, leading innovative research, and founding breakthrough startups. Read on to learn more about the ways women have brightened the light at Berkeley Engineering over the decades.

We'll be adding to this list as the year progresses, so check back for more on the women of Berkeley Engineering.



## Lisa Pruitt: From orthopedic biomaterials to mentoring future leaders

[BE150W](#), [Bioengineering](#), [Faculty](#), [Mechanical engineering](#)

Lisa Pruitt is known for her mechanical engineering research on orthopedic biomaterials and medical polymers. She's passionate about empowering others through life coaching and equine-guided leadership and has been honored for her commitment to excellence in mentoring, teaching and outreach.



## Grace O'Connell: Applying engineering to regenerative medicine

[BE150W](#), [Bioengineering](#), [Faculty](#)

Grace O'Connell studies musculoskeletal biomechanics using mechanical engineering approaches. Her research in soft tissue biomechanics employs computational and experimental approaches to understand mechanical behavior of the intervertebral disc with injury and degeneration.



## Diane Greene: Inspiring female founders and CEOs

[Alumni](#), [BE150W](#), [EECS](#), [Entrepreneurship](#)

Diane Greene is a serial entrepreneur, having co founded such startups as VMware, VXtreme and Bepop. The former CEO of Google Cloud, she now spends her time mentoring future female founders/CEOs with engineering or science backgrounds.



## Patricie Uwase: Improving infrastructure in Rwanda

[Alumni](#), [BE150W](#), [Civil engineering](#), [Infrastructure](#)

Patricie Uwase took her M.S. in civil and environmental engineering from Berkeley and created a powerful career within the Rwandan government, building and planning sustainable transport infrastructures in her native country.



## Pamela Eibeck: An early pioneer in multimedia education

[BE150W](#), [Faculty](#), [Mechanical engineering](#)

Before retiring in 2019, Pamela Eibeck distinguished herself as both an innovator in electronics cooling and 3D convective heat transfer, as well as a thoughtful leader at the helm of academic institutions.



## Jasmina Vujic: The first female chair of a nuclear engineering department

[BE150W](#), [Faculty](#), [Nuclear engineering](#)

Jasmina Vujic was the first woman to join UC Berkeley's nuclear engineering faculty in 1992, and in 2005 became the first female chair of a nuclear engineering department in the nation. join UC Berkeley's nuclear engineering faculty in 1992, and in 2005 became the first female chair of a nuclear engineering department in the nation.



### Julia Morgan: Iconic architect

*Alumni, BE150, BE150W, Civil engineering*  
Julia Morgan, who graduated in 1894 with a degree in civil engineering, was an architectural pioneer and “a true California gem.”



### Candace Yano: Engineering + business + industry

*BE150W, Industrial engineering*  
Candace Yano is known for her work in logistics as well as supply chain and service management. Her early research focused on analytical models for optimizing operational decisions in response to uncertainty in multi-stage manufacturing systems.



### Ruzena Bajcsy: Renowned engineer, ‘enemy of the state’

*BE150, BE150W, EECS, Faculty*  
Before robotics and computer vision pioneer Ruzena Bajcsy came to UC Berkeley from her native Czechoslovakia, she had already overcome extraordinary obstacles in her life, beginning with losing her family to the Nazis and the Communists.



### ‘A network of our own’

*BE150W, EECS*  
In celebration of 150 Years of Women at Berkeley, Sheila Humphreys tells the story of Women in Computer Science and Engineering, a student organization launched in the 1970s



### Fiona Doyle: An advocate for students across campus

*BE150W, Faculty, Materials science*  
Fiona Doyle, the third woman to join the engineering faculty, has been an educational leader across campus. Her research developed techniques to improve the environmental impacts associated with the production, manufacturing, and recycling of engineering materials.



### Susan Graham: The college’s first woman faculty member

*BE150W, Computing, Faculty*  
Susan Graham was the first woman to join Berkeley Engineering’s faculty. She and her research teams launched such innovations as Harmonia — a language-based framework for interactive software development — and Titanium — a Java-based parallel programming language, compiler, and runtime system.



### Katherine Yelick: A high performer across campus

*BE150W, EECS, Faculty*  
Katherine Yelick, known for her work in partitioned global address space programming languages and high-performing computing, has earned leadership roles across Berkeley’s research landscape.



### Tsu-Jae King Liu: Berkeley Engineering’s first female dean

*BE150W, EECS, Faculty*  
Tsu-Jae King Liu, known for her innovations in semiconductor devices and technology, is the College of Engineering’s first female dean. She oversees a program of 5,600+ students that consistently ranks among the nation’s top three engineering schools and colleges.



### Avidah Zakhor: 3D computer visionary

*BE150W, EECS, Faculty*  
Avidah Zakhor has parlayed her interests in the theories and applications of signal, image and video processing as well as 3D computer vision into several successful startups. She holds the Qualcomm Chair in the Department of Electrical Engineering and Computer Sciences.



### Amy Herr: 21st century scientist

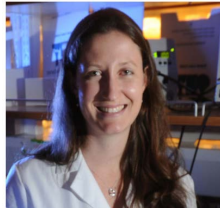
*BE150W, Bioengineering, Faculty*  
Amy Herr leads a renowned research



**Shafi Goldwasser: Cryptography pioneer**

Alumni #E150 #E150W EECS

Shafi Goldwasser, director of Berkeley's Simons Institute for the Theory of Computing, has made major contributions to cryptography and numerous other fields, creating work that "is crucial to the fabric of our connected digital society."



**Kelly Gardner: Improving the Western blot**

Alumni #E150W Bioengineering

Kelly Gardner developed a benchtop instrument that allows researchers to search for specific proteins in 1,000 single cells at once. She discovered the idea while working in Professor Amy Herr's lab at Berkeley and the two women cofounded Zephyrus Biosciences.



**Claudia Ostertag: The future of concrete**

BE150 #E150W Civil engineering Faculty

Civil and environmental engineering professor Claudia Ostertag is researching ways to make concrete more sustainable, without compromising its durability or strength.



**Dorit Hochbaum: IEOR's first female faculty member**

BE150W Faculty Industrial engineering

Dorit Hochbaum was the first woman appointed to the faculty of the Department of Industrial Engineering & Operations Research. Her research on data mining and pattern recognition is renowned; she's now working on problems related to homeland security.



**Dawn Song: Privacy protector**

Alumni #E150 #E150W EECS Faculty

Dawn Song, Berkeley Engineering professor and alumna, is proving to be a formidable leader in cutting-edge security and privacy research.



**Alice Agogino: Diversity by design**

BE150 #E150W Faculty Mechanical engineering

Alice Agogino's wide-ranging interests and expertise are reflected in the many facets of her BEST lab: space robots, sustainable technology, design education, and fostering diversity and inclusion in engineering.

team that's inventing tools to analyze the levels of proteins within single cells. She's deeply committed to teaching and mentoring, and is an advocate for bringing engineering design principles to undergraduate bioengineering education.



**Elizabeth Hausler: Building change**

Alumni #E150 #E150W Civil engineering, Uncategorized

Elizabeth Hausler is the founder and CEO of Build Change, an international nonprofit that designs disaster resistant structures and trains homeowners and craftsmen in best construction practices.



**Lillian Gilbreth: A genius in the art of living**

BE150W Industrial engineering

Lillian Gilbreth is considered the founder of the field of ergonomics. Her work was closely aligned with the field of industrial engineering, even though she attended Cal six decades before the Department of Industrial Engineering & Operations Research was created.



**Heather Bowerman: Innovating for women's health**

Alumni #E150W Bioengineering

Heather Bowerman wanted to address how lagging medical research and technology deployment for women's health has led to worse outcomes. She founded DotLab, a medical diagnostics company that has developed the first non-invasive test for endometriosis.



**Andrea Goldsmith: Wireless systems maven**

[Alumni](#), [BE150W](#), [EECS](#)

Andrea Goldsmith, Marconi Prize awardee and future dean of engineering at Princeton, is considered a pioneer in wireless communications. Her research areas include the design and performance of wireless systems and the use of communications and signal processing in biology.



**Barbara Simons: Making votes count**

[Alumni](#), [BE150](#), [BE150W](#), [EECS](#)

With the midterms rapidly approaching, there has been a flurry of news articles about the country's ability to safeguard election results. But for Barbara Simons, this scrutiny is long overdue.



**Chelsea Finn: Teaching robots to learn**

[BE150](#), [BE150W](#), [EECS](#), [Students](#)

Chelsea Finn is developing algorithms that enable robots to learn on their own by building on previous explorations and observations.



**Dawn Tilbury: Shaping engineering research**

[Alumni](#), [BE150](#), [BE150W](#), [EECS](#)

Berkeley Engineering alumna Dawn Tilbury has influence over the nation's fundamental engineering research and education as the head of the National Science Foundation's Directorate for Engineering.



**Rachel Slaybaugh: The future of nuclear**

[BE150](#), [BE150W](#), [Faculty](#), [Nuclear engineering](#)

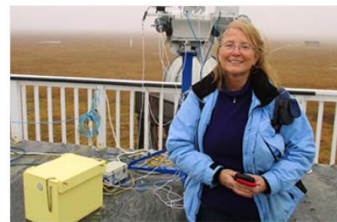
Rachel Slaybaugh's work is at the forefront of the movement to overhaul our nuclear industry—a key element in combating climate change. Her research examines the Boltzmann Transport Equation, which describes where all the neutrons are in a nuclear system.



**Christine Ho: Printing batteries**

[Alumni](#), [BE150](#), [BE150W](#), [Materials science](#)

Christine Ho invented a new battery chemistry and a print-based manufacturing process to simultaneously fabricate and place microscopic batteries onto wireless sensors.



**Leslie Field: Climate change fixer**

[Alumni](#), [BE150](#), [BE150W](#), [EECS](#)

Leslie Field is using her engineering background to slow the effects of climate change.