

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN SENATE
COMMITTEE ON HONORARY DEGREES
(Final; Action)

HD.23.06 Nomination for Honorary Degree Award – Shotwell

The Senate Committee on Honorary Degrees is pleased to nominate the following individual for an honorary degree award to be conferred at the May 2023 Commencement exercises:

- Gwynne Shotwell

Information relative to the background and achievements of this nominee is attached. Based on the criteria approved by the Senate, the Committee has selected this individual for Senate consideration.

The Committee wishes to express its sincere appreciation to all who participated in the process, particularly those who spent considerable amounts of time and effort in preparing documentation for this nominee.

COMMITTEE ON HONORARY DEGREES
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Gwynne Shotwell
President and Chief Operating Officer
SpaceX

EDUCATION:

B.S., Mechanical Engineering, Northwestern University, 1986

M.S., Applied Mathematics, Northwestern University, 1988

Nominated by: Robyn Woollands, Assistant Professor, Department of Aerospace Engineering, University of Illinois Urbana-Champaign, and Jonathan B. Freund, Willett Professor and Head, Department of Aerospace Engineering, University of Illinois Urbana-Champaign

BASIS FOR NOMINATION:

Ms. Gwynne Shotwell is being nominated for an honorary degree award, by the Department of Aerospace Engineering at the University of Illinois Urbana-Champaign, for her leadership in space exploration and her significant contributions in aerospace engineering. Ms. Shotwell is the President of SpaceX, and under her leadership SpaceX has significantly reduced launch costs due to the introduction of reusable rockets. Ms. Shotwell has set SpaceX on a path that would greatly facilitate access to space for numerous stakeholders all while making space travel more sustainable. Ms. Shotwell oversaw the first landing of a reusable rocket's first stage on both land and ocean platforms. Under her leadership, SpaceX has also become the first commercial company in the US to successfully deliver astronauts to the International Space Station (ISS). Ms. Shotwell successfully negotiated a multibillion-dollar contract with NASA to deliver astronauts and scientific payloads to the ISS. Ms. Shotwell has received numerous awards during her career, including being inducted into the Women in Technology International Hall of Fame (2012), named as the Satellite Executive of the year (2017), named on the list of Forbes' American's Top 50 Women in Tech (2018), and is a recipient of the Goddard Astronautics Award (2020). In addition to these career awards, Ms. Shotwell has authored papers in peer reviewed journals and in 2018 she gave a TED talk on the importance of STEM programs. Prior to working at SpaceX, Ms. Shotwell worked for the Chrysler Corporation, The Aerospace Corporation, and Microcosm Inc. Ms. Shotwell holds BS and MS degrees in Mechanical Engineering and Applied Mathematics from Northwestern University.

EXCERPT FROM THE NOMINATION LETTER:

Ms. Shotwell has had tremendous impact in engineering, most prominently through her role as President at SpaceX. During her tenure, she has revolutionized space flight via dramatic reduction of launch cost, and she oversaw such innovations as the first landing of reusable rocket first stage. She negotiated SpaceX's contract to be the first civilian aerospace company to deliver NASA astronauts to space.

The University of Illinois Urbana-Champaign strives to be an international leader in engineering impact that changes the world, as well as in our scholarship and research. Awarding an honorary degree award to Ms. Shotwell would not only provide an appropriate recognition of her engineering achievement and leadership, it would also signal the importance that the University places on global impact and inspiration of the next generation.

HONORS/AWARDS (NOT INCLUSIVE):

- 2020 Times' 100 Most Influential People
- 2020 Satellite Executive of the Year
- 2020 Elected a Member of the National Academy of Engineering
- 2018 Goddard Astronautics Award
- 2018 Forbes' America's Top 50 Women in Tech
- 2017 Satellite Executive of the Year
- 2012 Women in Technology International Hall of Fame

EXCERPTS FROM THE LETTERS OF RECOMMENDATION:

Michael D. Griffin, Co-President, LogiQ, Inc.; Former Administrator, National Aeronautics and Space Administration; Former Under Secretary of Defense, Research and Engineering

"Gwynne fully exemplifies your standard of "sustained activity of uncommon merit in areas such as...business and industry". Under her day-to-day leadership, she has built a company that has set and continues to set world-record rates of availability and reliability in the space launch industry, one of the most difficult areas in human history in which to succeed. Others who preceded her in her role were not able to do, or even to come close to doing, what she has done."

Megan McArthur Behnken, NASA Astronaut, National Aeronautics and Space Administration

"Perhaps most importantly, in 2020 SpaceX launched humans aboard a Crew Dragon spacecraft for the first time, returning capability to launch astronauts from US soil after 9 years. NASA Astronauts worked closely with SpaceX engineers throughout the vehicle development process and our inputs were welcomed and valued. I observed Ms. Shotwell at numerous Flight Readiness Reviews expound upon SpaceX's dedication to astronaut safety in their pursuit of mission success.

Spaceflight remains a difficult and dangerous business, one that requires not just ingenuity but discipline, diligence, and vigilance. It is crucial to astronaut safety and mission success that any organization involved in the mission supports an open environment so employees can bring forward their concerns about design and process, or any mistakes that may have been made. This type of work culture is highly valued by NASA's Human Spaceflight Team. From my observations as the pilot of Crew Dragon Endeavour, I believe this culture is supported by Ms. Shotwell at SpaceX. Through these accomplishments, Ms. Shotwell has shown herself to be an exemplary leader in the human spaceflight industry."

Basil Hassan, Ph.D., Director and Deputy Chief Research Officer, Sandia National Laboratories; Immediate Past President, American Institute of Aeronautics and Astronautics

“Gwynne is simply the world’s top technical leader in taking the commercial space business to the next level. She has been a pioneer in making human and cargo travel to space cost effective, resilient, and safe. I would venture to say that she is of equal stature to those past leaders in aeronautics in the last century who laid the groundwork for our commercial airline industry. Gwynne has changed the paradigm in her role as President of SpaceX. She is the leader of SpaceX both technically and programmatically, a unique combination that ensures success of individual missions, but also the longer-term vision to provide regular access to space. She has led a team that has pioneered several new innovations that will achieve this goal.

Gwynne and her team have taken the approach of approaching managed risk and have successfully introduced new ways of doing business, that are both safe and cost effective. As an example, reusable launch boosters have historically required many hours of labor time to ensure structural integrity has been maintained and that they are safe to be used again. Many would argue that reusability is not cost effective. Under Gwynne’s leadership, she and her team have shown, through great engineering and testing, that these new technologies will be both environmentally friendly and reduce overall costs. I do believe that through her efforts at SpaceX, we will see routine human presence in space during our lifetimes, and also boosting the space economy to new heights!”