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Daniel Hastings

Professor of Engineering Systems and [Aeronautics and Astronautics](#)

Dean, [Undergraduate Education](#)

Dr. Hastings, who earned a Ph.D. and an S.M. from MIT in Aeronautics and Astronautics in 1980 and 1978 respectively, received a B.A. in Mathematics from Oxford University in England in 1976. He joined the MIT faculty as an assistant professor in 1985, advancing to associate professor in 1988 and full professor in 1993. Dr. Hastings served ESD as Associate Director from July 2001 - April, 2003, Co-Director from May, 2003 - June, 2004, and Director from July 2004 - December 2005.

As Professor of Aeronautics and Astronautics and Engineering Systems, Hastings has taught courses and seminars in plasma physics, rocket propulsion, advanced space power and propulsion systems, aerospace policy, technology and policy, and space systems engineering.

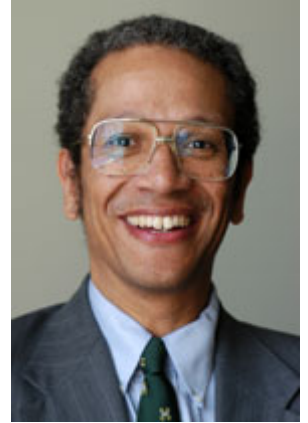
Dr. Hastings served as chief scientist to the U.S. Air Force from 1997 to 1999. In that role, he served as chief scientific adviser to the chief of staff and the secretary and provided assessments on a wide range of scientific and technical issues affecting the Air Force mission. He led several influential studies on where the Air Force should invest in space, global energy projection, and options for a science and technology workforce for the 21st century.

Dr. Hastings' recent research has concentrated on issues of space systems and space policy, and has also focused on issues related to spacecraft-environmental interactions, space propulsion, space systems engineering, and space policy. He has published many papers and a book in the field of spacecraft-environment interactions and several papers in space propulsion and space systems. He has led several national studies on government investment in space technology.

Dr. Hastings is a Fellow of the AIAA and a member of the International Academy of Astronautics. He is serving as a member of the National Science Board, the Applied Physics Lab Science and Technology Advisory Panel, as well as the chair of Air Force Scientific Advisory Board. He is a member of the MIT Lincoln Laboratory Advisory Committee and is on the Board of Trustees of the Aerospace Corporation. He has served on several national committees on issues in National Security Space. Dr. Hastings was elected as a Fellow of [INCOSE](#) (the International Council on System Engineering) in June 2007.

Please also view: <http://web.mit.edu/aeroastro/www/people/hastings/bio.html> and <http://web.mit.edu/hastings/www/home.html>.

Updated July 2007



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News and announcements:

Daniel Hastings featured on MIT World videos:

- > [How Can We Improve Disaster Response?](#) (September 30, 2005)
- > [Engineering Engineering Systems](#) (October 7, 2004)
- > [Looking Ahead](#) (March 30, 2004)

[Working Together: A Report on the Task Force for the Educational Commons](#) (December 1, 2006)

[Hastings named undergraduate dean](#) (December 2, 2005)

[Hastings Named Next Undergraduate Education Dean](#) (December 2, 2005)

Hurricane Symposium zeroes in on response (features ESD Professors Larson, Oye, and Sheffi. Moderated by Prof. Hastings.) Click [here](#) for article and [here](#) for online video. (October 9, 2005)

[Rhodes, Frey Honored at INCOSE Symposium ESD plays major role in event](#) (July 22, 2005)

[Hastings Named 2005 Giant in Science](#) (February 28, 2005)

[Establishing Leadership in the Emerging Field of Engineering Systems](#) (October 8, 2004)

[Hastings is New Head of ESD](#) (July 7, 2004)

Recent Papers presented at the 2004 Engineering Systems Symposium:

- > Author of Monograph Chapter "[The Future of Engineering Systems: Development of Engineering Leaders](#)"
- > Co-Author of Monograph Chapter "[Uncertainty Management for Engineering Systems Planning and Design](#)"
- > Co-Author of Submitted Paper "[A Framework for Understanding Uncertainty and its Mitigation and Exploitation in Complex Systems](#)"
- > Co-Author of Submitted Paper "[To Reduce or to Extend a Complex Engineering System Design Lifetime? What is at Stake, for Whom, and How to Resolve the Dilemma](#)"
- > Co-Author of Submitted Paper "[The Case for Evolving Systems Engineering as a Field within Engineering Systems](#)"
- > Co-Author of Submitted Paper "[Calculations of Flexibility in Space Systems](#)"

[Hastings Named ESD Co-Director](#) (May 2003)

[Hastings honored with AIAA's Losey Award](#) (February 2003)

[Hastings to be nominated to National Science Board](#) (January 2003)

Hastings to Help Lead ESD *(June 2001)*

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