

YONGGANG HUANG

Department of Mechanical Engineering (50%),
Department of Civil and Environmental Engineering (50%), and
Department of Materials Science and Engineering (0%)
Northwestern University

Education:

Ph.D.	Engineering Science	Harvard University	1990
S.M.	Engineering Science	Harvard University	1987
B.S.	Mechanics	Peking University	1984

Professional Experience:

9/20-present	Jan and Marcia Achenbach Professor
9/15-9/20	Walter P. Murphy Professor
8/07-8/15	Joseph Cummings Professor

Departments of Civil and Environmental Engineering and Mechanical Engineering
Northwestern University

8/04-8/07	Shao Lee Soo Professor
8/03-8/04	Grayce Wicall Gauthier Professor
8/01-8/03	Professor
8/98-8/01	Associate Professor

Department of Mechanical and Industrial Engineering
University of Illinois at Urbana-Champaign

8/95-8/98	Associate Professor
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Department of Mechanical Engineering - Engineering Mechanics
Michigan Technological University

8/91-7/95	Assistant Professor
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Department of Aerospace and Mechanical Engineering
The University of Arizona

6/90-7/91	Postdoctoral Research Fellow
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(for Drs. B. Budiansky and J. R. Rice)
Division of Applied Science, Harvard University

6/87-5/90	Research Assistant
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(for Dr. J. W. Hutchinson)
Division of Applied Science, Harvard University

Visiting Positions:

9/18-12/21 Faculty Fellow
Hagler Institute for Advanced Study, Texas A&M University, College Station, Texas

8/05-8/06 Clark Millikan Visiting Professor
Graduate Aeronautical Laboratories, California Institute of Technology

Academy Membership:

Member, European Academy of Sciences and Arts, 2010-.
Member, US National Academy of Engineering, 2017-.
Foreign Member, Academia Europaea, 2017-.
Foreign Member, Chinese Academy of Sciences, 2017-.
Fellow, American Academy of Arts and Sciences, 2020-.
Member, US National Academy of Sciences, 2020-.

Editors:

Co-Editor-in-Chief, Theoretical and Applied Mechanics Letters, 2011-2024.

Editor-in-Chief, Journal of Applied Mechanics - Transactions of the ASME, 2012-2022.

Advisory Board, Extreme Mechanics Letters, 2014-.

Advisory Board, Acta Mechanica Sinica, 2015-2020.

Associate Editor, Acta Mechanica Sinica, 2005-2015.

Associate Editor, Journal of Applied Mechanics - Transactions of the ASME, 2005-2011.

Associate Editor, NPJ Flexible Electronics (by Nature Publishing Group), 2016-.

Associate Editor, Science China: Technological Sciences, 2018-.

Associate Editor, Research, 2018-.

Editorial Board, International Journal of Plasticity, 2002-2013.

Editorial Board, International Journal of Fracture, 2004-.

Editorial Board, Acta Mechanica Solida Sinica, 2007-.

Editorial Board, International Journal of Solids and Structures, 2011-.

Editorial Board, Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012-2018.

Editorial Board, Current Opinion in Solid State & Materials Science, 2012-.

Editorial Board, Research, 2018-.

Editorial Board, Journal of the Mechanics and Physics of Solids, 2021-.

Editorial Board, Proceedings of the National Academy of Sciences of the United States of American, 2021-2024.

Society Leadership:

Past President (2015), **President** (2014), **Vice President** (2013), **Member, Board of Directors**, Society of Engineering Sciences, 2012-2015

Eshelby Award Committee, 2013- (**Chair**, 2014, 2016, 2017, 2019, 2020).

Executive Committee (Chair, 2019-2020), Applied Mechanics Division, American Society of Mechanical Engineers, 2015-2020

Vice Chair (2021-2022), **Chair** (2022-2023), Peer Committee for Section 10 (Mechanical Engineering), National Academy of Engineering

Awards and Honors (Research, since 2001):

Research Award for US Scientists and Scholars, Alexander von Humboldt Foundation, Germany, 2001.

Gustus L. Larson Memorial Award, American Society of Mechanical Engineers and Pi Tau Sigma (National Mechanical Engineering Honor Society), 2003.

George W. Melville Medal, American Society of Mechanical Engineers, 2004.

Young Investigator Medal, Society of Engineering Science, 2006.

International Journal of Plasticity Medal, 2007.

Guggenheim Fellowship, John Simon Guggenheim Memorial Foundation, 2008.

Highly Cited Researcher in Engineering, Thomson Reuters Web of Science, 2009.

Work on stretchable electronics selected as the **cover of NSF budget request to Congress for fiscal year 2011**, 2010.

Charles Russ Richards Memorial Award, American Society of Mechanical Engineers and Pi Tau Sigma (National Mechanical Engineering Honor Society), 2010.

Member, **European Academy of Sciences and Arts**, 2010-.

Paper titled “Mechanics of hemispherical electronics” selected by the Editors at *Applied Physics Letters* as one of the most notable papers in recent years, for highlight in the 50th anniversary edition of the journal, 2012.

Work on epidermal electronics featured by NBC Learn, the education arm of NBC, 2013,
<http://www.nbclearn.com/portal/site/learn/cuecard/62961> (now
<https://www.youtube.com/watch?v=HPhH1Z62QTY&t=3s>).

Daniel C. Drucker Medal, American Society of Mechanical Engineers, 2013.

Highly Cited Researcher in Materials Science, Thomson Reuters Web of Science, 2014.

Highly Cited Researcher in Materials Science, Clarivate Analytics Web of Science, 2015.

Highly Cited Researcher in Materials Science, Clarivate Analytics Web of Science, 2016.

Nadai Medal, American Society of Mechanical Engineers, 2016.

Annual Best Lecture, Global Vision Lectures, Nanjing Tech University, 2016.

Member, **US National Academy of Engineering**, 2017.

William Prager Medal, Society of Engineering Sciences, 2017.

Foreign Member, **Academia Europaea**, 2017.

Highly Cited Researcher in Materials Science, Clarivate Analytics Web of Science, 2017.

Foreign Member, **Chinese Academy of Sciences**, 2017.

Zdenek P. Bazant Medal for Failure and Damage Prevention, American Society of Civil Engineers, 2018.

Outstanding paper award, National Science Review, 2017 (for the paper “Mechanics and thermal management of stretchable inorganic electronics” by Jizhou Song, Xue Feng and Yonggang Huang, National Science Review, v 3, pp 128-143, 2016).

Highly Cited Researcher in Materials Science, Clarivate Analytics Web of Science, 2018.

Highly Cited Researcher in Physics, Clarivate Analytics Web of Science, 2018.

Theodore von Karman Medal, American Society of Civil Engineers, 2019.

Thurston Lecture Award, American Society of Mechanical Engineers, 2019.

Highly Cited Researcher in Materials Science, Clarivate Analytics Web of Science, 2019.

Fellow, **American Academy of Arts and Sciences**, 2020.

Member, **US National Academy of Sciences**, 2020.

Paper “Epidermal radio frequency electronics for wireless power transfer” by Huang et al. (Microsystems & Nanoengineering, v 2, article 16052, 2016) has been awarded “An Outstanding Paper of Microsystems & Nanoengineering” on 8/8/2020.

Highly Cited Researcher in Materials Science, Clarivate Analytics Web of Science, 2020.

Awards and Honors (Teaching):

Most Supportive Junior Faculty Member, voted by exit senior, Department of Aerospace and Mechanical Engineering, The University of Arizona, 1993.

On the “**Incomplete List of Teachers Ranked as Excellent by Their Students**” (top 10% teachers), University of Illinois at Urbana-Champaign, Spring 2003.

On the “**Incomplete List of Teachers Ranked as Excellent by Their Students**” (top 10% teachers), University of Illinois at Urbana-Champaign, Spring 2004.

On the “**Incomplete List of Teachers Ranked as Excellent by Their Students**” (top 10% teachers), University of Illinois at Urbana-Champaign, Fall 2004.

On the “**Incomplete List of Teachers Ranked as Excellent by Their Students**” (top 10% teachers), University of Illinois at Urbana-Champaign, Spring 2005.

On the “**Incomplete List of Teachers Ranked as Excellent by Their Students**” (top 10% teachers), University of Illinois at Urbana-Champaign, Fall, 2006.

On the “**Incomplete List of Teachers Ranked as Excellent by Their Students**” (top 10% teachers), University of Illinois at Urbana-Champaign, Spring 2007.

Engineering Council Award for Excellence in Advising (top 10% engineering advisors), College of Engineering, University of Illinois at Urbana-Champaign, April 2007.

Cole-Higgins Award for Excellence in Teaching, 2015-2016 (for an engaging teaching style that combines the big picture and technical details, while encouraging students to develop their own problem-solving style (one award per year, McCormick School of Engineering, Northwestern University)).

Associated Student Government Faculty and Administrator Honor Roll, Northwestern University, 2018.

Associated Student Government Faculty and Administrator Honor Roll, Northwestern University, 2020.

External Services:

External Review Panel, Department of Mechanical Engineering, University of Houston, Houston, Texas, 2012

Eshelby Award Committee, 2013-present (Chair, 2014, 2016, 2017, 2019)

Board of Editors, American Society of Mechanical Engineers, 2012-2022

Drucker Medal Committee, American Society of Mechanical Engineers, 2014-2019

Executive Committee (Chair, 2019-2020), Applied Mechanics Division, American Society of Mechanical Engineers, 2015-2020

Nominations Committee, Engineering Mechanics Institute, American Society of Civil Engineers, 2016-2018

Awards Committee, Engineering Mechanics Institute, American Society of Civil Engineers, 2016-2018

MIT Corporation Visiting Committee for Civil and Environmental Engineering, 2017-2020

Nadai Medal Committee, Materials Division, American Society of Mechanical Engineers, 2017-2020

US National Committee of Theoretical and Applied Mechanics, 2018-2022

Pi Tau Sigma Awards Committee (ASME Representative), 2018-2022

Committee for the Zdenek P. Bazant Medal for Failure and Damage Prevention, American Society of Civil Engineers (Representative from USNCTAM), 2020

Peer Committee (Vice Chair 2021-2022, Chair 2022-2023), Section 10 (Mechanical Engineering), National Academy of Engineering, 2020-2023

Chair, Solids Subcommittee for IUTAM Papers, USNCTAM, 2020

Awards Committee, Applied Mechanics Division, American Society of Mechanical Engineers, 2020-2025

PNAS Cozzarelli Prize Committee (Class III in National Academy of Sciences), 2021

Mindlin Award Committee, Engineering Mechanical Institute, American Society of Civil Engineers, 2020-2021

Search Committee, Section 10 (Mechanical Engineering), National Academy of Engineering, 2021-2022