

# Carnegie Mellon University

## Engineering & Public Policy

The Department of Engineering and Public Policy at Carnegie Mellon University offers a doctoral program for students with technical backgrounds that addresses policy issues in which science and engineering are of central importance. We are a highly interdisciplinary program, approaching critical problems with teams of faculty and students who contribute a variety of skills, insights and methods from different disciplines.

Our work influences how others think about and research tough policy issues, as well as how decision makers develop and implement policy in government agencies, corporations and non-government organizations in the US and internationally.



### Research Areas

#### Risk Analysis and Risk Communication

Risk-related work in the department ranges from the analysis of new or under appreciated risks to studies of public perceptions and valuation, how best to improve public understanding of risks, how to facilitate public participation in risk-related decision making, and how to improve the management and regulation of risks.

#### Information and Communication Technology and Policy

The Information and Communication Research Program in EPP is probably the strongest research group in the country working on the policy aspects of advanced telecommunications and information technologies. New computer and information technologies are turning traditional telecommunications on its head.

#### Energy and Environmental Systems

The department has assembled one of the strongest groups in the world engaged in policy studies of energy and environmental systems. While some of the work involves single investigators or small groups, much of it is conducted as part of the activities of various Research Centers affiliated with the department.

#### Managing the Risks of Terror and Weapons of Mass Destruction

While terrorism topics involve technical issues, they also involve important social and behavioral dimensions. One of the strengths of the Department of Engineering and Public Policy is that it combines faculty with deep technical expertise with outstanding faculty in behavioral social science.

#### Technical Innovation

EPP research on technical innovation focuses on the role of government in technology development, the effect of location on the competitiveness of new technologies, sustainability and entrepreneurship in emerging economies, technological and organizational dimensions of innovation, management of research and development, and public policy strategies for new technology commercialization.

### The Program

Our principal PhD program in Engineering & Public Policy requires a rigorous program of courses and research accomplishment. Our research advances how engineering policy problems are formulated, solved and interpreted for policy insight and development.

The program includes a series of core classes on fundamental approaches and methods for engineering and public policy; as well as classes in statistics and economics; electives in engineering, sciences, mathematics and the social sciences. Research efforts begin early in the academic program with the first journal-quality research paper at the third semester, and continue through the development of subsequent papers and the Ph.D. thesis.



## Engineering & Public Policy Graduate Students...

**Are engineers, scientists and mathematicians** adept in technical areas that affect social and policy issues nationally and internationally in the environment, energy, risk, regulation, information technology, Internet commerce and security, telecommunications, engineering education, technology development and exchange, or economic development.

**Recognize** that the technical details matter in many policy issues, and wish to obtain or enhance advanced disciplinary skills in engineering and science.

**Understand** that the technical details are not all that matters, and want to learn and apply knowledge and methods in the social and behavioral sciences, economics, political science and law.

## Our graduates work in world-class organizations

### Academia

Singapore (several)  
Smith College  
Stanford University  
State University of New York  
Stevens Institute of Technology  
University of Toronto  
Tsinghua University  
University of British Columbia  
UCal (several)  
UCLA  
U.C. San Diego  
U.C. Santa Barbara  
U.C. London  
USC  
University of Texas at Austin  
University of Virginia  
University of Vermont  
Washington University  
University of Waterloo  
Yale University

### Industry

Aetna  
AT&T  
AES Energy Storage  
BAE Systems  
The Brattle Group  
CLEARResult  
Compaq  
CONSOL  
Customized Energy Solutions  
CVS  
DC Energy  
EarthSpark  
International  
DNV GL  
EADS  
Eaton  
Facebook  
Fuel Tech  
Gates Foundation  
Genentech  
GE  
Google  
Huawei  
IIT Bombay  
IBM

Kema  
LDH Energy  
Lucent  
MasterCard  
Meridian Energy  
Microsoft  
NERC  
New England Financial  
NiSource Corporation  
Philips Health Care  
PJM Interconnection  
Raytheon  
SAIC Energy  
Environment & Infrastructure, LLC  
Tesla  
Tetra Tech  
TVA  
ViaSat  
Wellspring  
Westinghouse  
Windward  
Environmental LLC  
World Resources Institute  
Worley-Parsons  
Customized Energy Solutions  
Lumina Systems

### Government, Labs, NGOs, and Consulting

ABS Consulting  
Army Corps of Engineers  
State of Alaska  
Booz Allen Hamilton  
Boston E&E  
Brattle Group  
Brookings Institution  
U.S. Army  
California Air Resources Board  
Carlyle Group  
Collegiate Science and Technology Entry Program  
Congressional Research Service  
Department of Homeland Security

U.S. Department of Defense)  
U.S. Department of Energy  
U.S. Department of State  
U.S. Environmental Protection Agency  
U.S. Federal Communications Commission  
U.S. Food and Drug Administration  
Florida Department of Environmental Protection  
ICANN  
IIASA (Austria)  
McKinsey and Company  
LBNI (USA)  
MITRE Corporation  
National Center for Atmospheric Research  
Naval Air Warfare Center Research  
National Institute of Standards and Technology  
NOAA's Earth Systems Research Laboratory  
NREL (USA)  
Noblis  
OMB  
U.S. Geological Survey (USGS)  
National Library of Congress  
RAND  
SAIC Inc  
S&T Policy Institute  
SRI International

National lab and government positions in Chile, China, EU, IEA, Japan, Korea, Malaysia, Mexico, Saudi Arabia, Thailand, and the United Nations

## Carnegie Mellon University

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#### Fast Facts

The department was established in 1976

As of 2015, we have graduated more than 800 undergraduates and 280 PhDs

The PhD students are 63% U.S. Nationals, 30% women, and 13% U.S. minorities

Sixty percent of graduates are in jobs in think tanks, government and the private sector. Over 30% hold academic jobs.

EPP faculty hold joint appointments with other departments across Carnegie Mellon, and include fellows in professional societies as well as members of the National Academy of the Sciences, the National Academy of Engineering and the Institute of Medicine

Faculty routinely serve on, and chair, many government and industry advisory boards

We maintain an office in Washington D.C. to facilitate interaction between students, faculty, and decision-makers.

