

Undergraduate Research@ND

Success Stories

Patrick Brown (ND '09) 2007 Slatt Scholar Receives a Hertz Fellowship

Patrick Brown became interested in solar power during his three years of research at Notre Dame with **Prof. Prashant Kamat**.



His commitment to solar energy earned him a competitive Slatt Fellowship in 2007 and a prestigious Hertz Fellowship from the Fannie and John Hertz Foundation in 2010. While continuing his research and pursuing graduate studies in physics at the Massachusetts Institute of Technology, the Hertz Fellowship supports Patrick's stipend for up to five years and provides him with opportunities for exposure to national leaders and researchers in his field.

Since 1963, the Hertz Foundation has identified over 1,070 promising applied scientists and engineers with the potential to change the world for the better and has supported their doctoral research by providing the nation's most generous PhD Fellowships.

Patrick is currently focusing his research on understanding the physics of charge transport in multijunction quantum dot photovoltaics (QD PVs) and the development of novel all-inorganic QD PV architectures.

Yamil Colón (ND '10) 2008 Slatt Scholar Receives a Fulbright Scholarship

As a junior student in Chemical



Engineering at Notre Dame, Yamil Colón received a Slatt Fellowship to conduct research with

Prof. Joan Brennecke on the use of specific ionic liquids based on the thermophysical properties of each liquid in different compositions of ethanol. A year later, Yamil received one of the prestigious Fulbright Scholarships and attended the University of Santiago de Compostela in Spain to study separation processes and phase equilibria.

The Fulbright Exchange Program is the nation's premier scholarship program designed to foster mutual understanding among nations through educational and cultural exchanges.

Yamil is currently a graduate student in Chemical Engineering at Northwestern University, studying theoretical design of metal-organic frameworks for hydrogen storage.

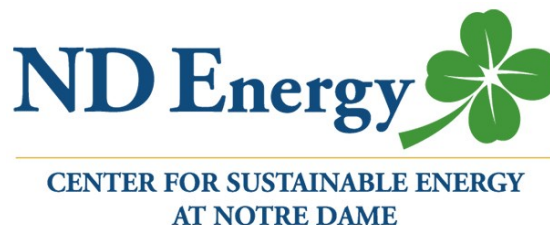
Margaret Bellon (ND '13) 2011 Slatt Scholar Studies in Nepal



Margaret Bellon, Notre Dame Alumna in Civil Engineering and Energy Studies, received a competitive Slatt Fellowship in 2011. Under the direction of **Prof. Joe Fernando**, Margaret traveled to Chitepani, Nepal to identify opportunities for providing clean energy and water in a rural village in Nepal. While there, Margaret developed recommendations for a community charging

station that used available water resources to provide power for lighting, small electronics for residents, and computers for the local school. Her work resulted in another team of researchers who later designed, delivered and installed a micro-hydroelectric generation and charging facility to provide additional power for a water purification system.

Margaret is currently a part of the Energy and Utilities practice at West Monroe Partners in Chicago, Illinois. She focuses on sustainability and has experience developing energy-efficiency roadmaps, assessing technology solutions, and optimizing customer service within utilities.



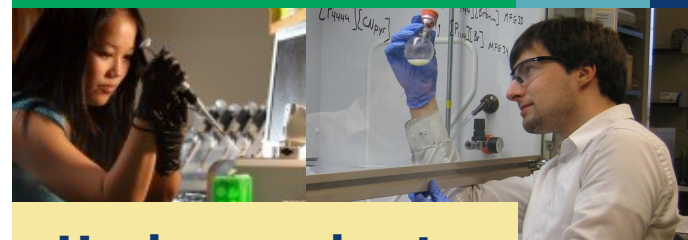
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Vincent P. Slatt Undergraduate Research in Energy Systems and Processes

Administered by the
Center for Sustainable
Energy at Notre Dame



Undergraduate
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SLATT FELLOWSHIPS IN ENERGY RESEARCH

For Undergraduate Students

The *Undergraduate Energy Research Expo* is hosted annually by ND Energy and is oftentimes the initial step students will take in the process of conducting energy related research at Notre Dame. The Expo allows students to learn more about research opportunities in energy and helps to match their interests with research groups

that have openings within their labs.

ANNAUL

Undergraduate Energy Research

EXPO

During the Expo, students are able to

ask questions and seek clarification about the various research projects being presented by Notre Dame researchers. At the conclusion of the program, students may choose to complete an application, indicating their primary choices in energy research. This information is then shared with the research groups with the intent that students will reach out to them and make a connection. The Expo is also a great opportunity for students to begin to prepare for the Slatt application process.

All undergraduate students are welcome to attend the Expo. Previous research experience is not necessary. In fact, more than half of the students attending are typically new to energy related research.

PROGRAM OVERVIEW

Administered by the Center for Sustainable Energy at Notre Dame (ND Energy), Slatt Fellowships are awarded annually to undergraduate students at the University of Notre Dame who have research interests in energy technologies and America's energy future.

Research projects submitted for consideration must be focused on creating better energy systems and devices or strengthening America's energy future through the development of policies and infrastructure to support new technologies.

Energy technologies can range from a means to improve the use of fossil, nuclear, and alternative energy sources for power or fuels production to the development of more efficient transportation and energy utilization systems.

Since 2006, Slatt Fellowships have been made possible through the generosity of Christopher (ND '80) and Jeanine Slatt in honor of Vincent P. Slatt, Notre Dame Class of 1943.



APPLICATION PROCESS

Students who are interested in applying for a Slatt Fellowship must complete an application on line in collaboration with their faculty research advisers. A link to the application can be found on the ND Energy Website.

Each award is up to \$5,000 and can be used for the student's stipend, supplies, and travel to present his/her research at a national meeting or conference. The amount of the award depends on the needs of the research and the time required to complete the project. This amount is determined in cooperation with the faculty research adviser.

The optimal time period for students to conduct Slatt research projects is during the summer months. Occasionally, students and researchers may deem it necessary to delay the start of the research project until the fall semester. In all instances, research projects must be completed and final reports submitted to the ND Energy Office by April 30 of the spring semester.

KEY DATES TO REMEMBER

January	Energy Research Expo
February 1-28	Applications Accepted
March 15	Awards Announced
May 1	Funding Available
April 30	Final Reports Due

Slatt Scholars will present their research at the Undergraduate Scholars Conference, held twice annually in summer and spring.

ENERGY RESEARCH