Make Your Research Matter by Asking Better Questions!

Doctoral Incubator for Technology-Environment-Energy-Water-Society (TEEWS) Grand Challenges

Who? Notre Dame doctoral students in the College of Engineering and the College of Science seeking to better formulate research questions to have a **transformative impact on society**. We especially encourage early-stage Ph.D. students to apply.

What? While a doctoral student in CEEES@ND, Dr. Maria Gibbs grew frustrated with the lack of connection between her research in fluttering analysis for bridge safety and real-world impact. Through impactful mentorship, Dr. Gibbs expanded her thesis to deploy sensor networks in Nicaragua in partnership with a non-profit. After graduation, she co-founded INVANTI Studio (https://www.invanti.co/) which helps entrepreneurs develop innovative solutions to "kitchen table problems". As TEEWS fellows, you will participate in a novel Doctoral Incubator, adapted from the success of INVANTI Studio, to learn design thinking frameworks and engage with community partners to understand problems and barriers that connect to your research.

Development of the Doctoral Incubator is supported by a grant from the National Science Foundation (EFMA-2203670). Fellows will be asked to provide informed consent to participate in the associated research study at the beginning of the program. Please contact the project PI, Prof. Alex Dowling (adowling@nd.edu), with any questions.

When and Where? TEEWS Graduate Fellows are required to participate in three in-person on-campus workshops on June 7, June 28, and July 19 (all Wednesdays) from 12:30pm to 7pm. (This time includes evening meals and social events for cohort building.) After each workshop, fellows will engage in asynchronous activities such as reviewing translation and impact-focused literature in their research area, developing research hunches, and interviewing community partners. These activities are all designed to explore the broader societal impacts and grand challenges surrounding each fellow's dissertation research.

Why? The Doctoral Incubator will provide graduate students with unique training in design thinking, broader impacts, and interdisciplinary research. Fellows will walk away with:

- 1. A broader impact informed research question
- 2. Broader impacts boilerplate copy for use in grant applications, papers, and interviews
- 3. Broader impacts slides to use for presentations
- 4. Confidence their research will have a transformative impact on society

Stipend Support? TEEWS Fellows who fully participate will receive stipend support to cover their time spent in the program. Please email Prof. Alex Dowling (adowling@nd.edu) and CC Kathy Knoll (kknoll@nd.edu) for more information.

Apply by April 21, 2023 via this short Google Form (QR code).

