

## Student Innovation Fellowship Guidelines

For 2018-2019 Academic Year

### Overview

The Thornton Tomasetti Foundation (TTF) was established in 2008 with a mission to fund projects, scholarships and fellowships in building engineering, design or technology. This new fellowship offers up to \$5,000 in funding for specific projects that further innovation in the structural engineering and applied mechanics practice. Any projects that fulfil the goal of innovation will be considered. General suggested topics include innovations that support: The integration of engineering and architecture; sustainability; and applying new approaches, such as robotics, nano technology, big data, material sciences or building damping solutions, to problems in the built environment.

#### 1. Goal of the fellowship

The up to \$5,000 fellowship (including expenses) aims to fund the development of a specific project. The project can result in a paper **published** in a journal or other open forum, include a computer program, or a prototype with design drawings. The foundation reserves the right to publish any findings, computer programs, and drawings on the foundation website.

#### 2. Eligibility

The applicant must be graduating from a U.S. university or college and entering into a Master's program, or currently enrolled in a Master's or Ph.D. program.

#### 3. Application Process

Candidates and their projects must be nominated by a department chair. The department chair must submit one candidate qualifications (#4, below) via email to the Thornton Tomasetti Foundation ([info@ThorntonTomasettiFoundation.org](mailto:info@ThorntonTomasettiFoundation.org)) by April 7, 2018. The Thornton Tomasetti Foundation jury will meet in April and notify the participating department chairs by the second week of May.

#### 4. Submission Requirements

- In addition to the nomination from the department chair, a one-page letter of recommendation from another faculty member.
- A one-page copy of the applicants resume
- A one-page description of the project including the goals of the innovation and project deliverables. Graphics may be added.
- A list of tasks required to achieve the project goals.
- Any equipment required, its description and costs.

## **5. Recipient Responsibilities**

The recipient agrees to provide a high-resolution headshot (in .jpg format) for the Foundation to use to announce the National Fellowship.

The recipient agrees to provide progress reports (up to 750 words with illustrations and high resolution photos if needed) within 6 months of receipt of the fellowship award and every 6 months thereafter.

Upon completion, the recipient agrees to provide, at minimum, a technical white paper describing the project goals and the results of the fellowship.

The recipient is encouraged to reach out to the foundation to help find mentors for the project and venues for publication of successful results.

The recipient agrees to complete the project within 24 months. If the applicant cannot complete the project, fellowship reimbursement will be in accordance with the university policies.

Payment will be 50% of the grant up front and the remainder at the end of the fellowship program. This can vary depending on the expenses required to commence the project.

## **6. Other Thornton Tomasetti Foundation programs**

The TTF foundation is currently supporting our mission with the National Scholarship, the UK Scholarship, the Technical Literacy Fellowship and this Student Innovation Fellowship, as well as several grant programs and collaborating arrangements with other nonprofits.

# Thornton Tomasetti Foundation

## Technical Literacy Fellowship

### Guidelines

#### For 2018/2019 Academic Year

The Thornton Tomasetti Foundation (TTF) was established in 2008 with a mission to fund projects, scholarships and fellowships in building engineering, design or technology. This new initiative offers up to \$5,000 in funding for specific projects that further the technical literacy of the public at large especially regarding extreme loading events, wind performance, risk, reliability and the engineering processes that provide the foundation for all the structures in our built environment. Any projects that fulfill the goal of education will be considered.

#### 1. Goal of the initiative

The initiative aims to fund the development of a specific proposal. The applicant should propose how they are planning to engage the public either through the development of a marketing packet, web-site, social media, education of the media, or more. We encourage the use of visual communications including infographics to explain the topic. The foundation reserves the right to publish any findings, computer programs, and drawings on the foundation website. Although the intent is to award one or two annual fellowships, the Foundation reserves the right not to award or to split the award as it deems appropriate. Your research program should consider including but not necessarily be limited to the following:

- Understanding the expected performance of buildings and infrastructure.
- What do codes design for?
- How can performance based design help?
- The statistical nature of "Safe."
- The economic constraints on "Safe."
- How can life cycle cost analysis help?
- Defining resilient design and resilient planning.

Include examples about how the concepts are currently misunderstood (see example in Figure 1 at end of solicitation), and how this fellowship would address the problem. Performance based design may be the appropriate framework for understanding these definitions part of the challenge of this initiative is to encourage creativity and innovation in explaining these concepts to the wider public.

#### 2. Eligibility

The applicant must be graduating from a U.S. university or college and entering into a Master's program, or currently enrolled in a Master's or Ph.D. program.

### 3. Application Process

Candidates and their projects must be nominated by a department chair. The department chair must submit one candidate qualifications (#4, below) via email to the Thornton Tomasetti Foundation (info@ThorntonTomasettiFoundation.org) by April 7, 2018. The Thornton Tomasetti Foundation jury will meet in April and notify the participating department chairs by the second week of May.

### 4. Submission Requirements

- In addition to the nomination from the department chair, a one-page letter of recommendation from another faculty member.
- A one-page description of the project including the topic that the wider public is being educated about and the suggested venues for delivering this information.
- A list of tasks required to achieve the project goals.
- Any equipment required, its description and costs.
- A one-page resume.

### 5. Recipient Responsibilities

The recipient agrees to provide a high-resolution headshot (in .jpg format) for the Foundation to use to announce the award. The recipient agrees to provide a progress report (up to 750 words with illustrations and high-resolution photos if needed) within 6 months of receipt of the award.

Upon completion, the recipient agrees to provide, at minimum, a technical white paper describing the project goals and the results of the sponsorship. An acknowledgment of TTF support must appear in publications (including World Wide Web sites) of any material, whether copyrighted or not, based on or developed under TTF-support: "This material is based upon work supported by the Thornton Tomasetti Foundation."

TTF support also must be orally acknowledged during all news media interviews, including popular media such as radio, television and news magazines.

Except for articles or papers published in scientific, technical or professional journals, the following disclaimer must be included: "Any opinions expressed are those of the author and not those of the Thornton Tomasetti Foundation."

The recipient is encouraged to reach out to the foundation to help find mentors for the project and venues for publication of successful results. The recipient agrees to complete the project within 12 months. If the applicant cannot complete the project, fellowship reimbursement will be in accordance with the university policies.

Payment will be 50% of the grant up front and the remainder at the end of the fellowship program. This can vary depending on the expenses required to commence the project.

6. Other Thornton Tomasetti Foundation programs

The TTF foundation is currently supporting our mission with the National Scholarship, the UK Scholarship, the Student Innovation Fellowship, and this Technical Literacy Fellowship as well as several grant programs and collaborating arrangements with other nonprofits.

FIGURE 1:

