



## **2019 AISC Milek Fellowship Program Description**

### **Introduction**

The future of structural steel construction depends, in part, on a consistent influx of educators and graduate students. These are the future professors who will educate and motivate successive generations of design professionals to build with structural steel and appreciate its advantages. A strong presence of steel material and steel structural design courses in college and university curricula requires faculty members who are knowledgeable and enthusiastic about structural steel, which, in turn, is linked to levels of academic research focused on structural steel. The entire structural steel construction industry will benefit from increased academic research and a continuing stream of new faculty excited and knowledgeable in the design and construction of steel structures. In support of these beliefs, AISC provides funding to selected college faculty in association with the award of a fellowship. Funding will be used for graduate research assistantships, faculty release and/or salary, graduate and undergraduate hourly wages, equipment and supplies and services.

### **Objective**

Utilize research needs to develop promising faculty and graduate degree level students for academic and design careers in the U.S. structural steel industry while performing academic activities directed toward meeting long-term objectives of the structural steel industry. This award will contribute to the research careers of beginning faculty who teach and conduct investigations related to structural steel in the U.S., while producing research results that benefit designers, fabricators and erectors of structural steel, and related industries. Ancillary goals include enhancing structural steel design programs at influential universities, providing an industry liaison to gifted students and faculty, providing a level of familiarity with the customary practices in structural steel construction, and developing an enhanced level of expertise in areas of research interest in order to obtain future academic resources with the depth necessary to sustain the level of performance that the industry requires for continued growth.

### **Award**

Part of the value of this program to AISC, the selected fellow, and the university is the public recognition of the honor. The faculty member whose application is selected will be identified as the AISC Milek Fellow in selected publications and other venues, will be presented with a Milek Fellow certificate, and will receive free registration at NASCC: The Steel Conference for the four years following their selection as Milek Fellow. The faculty member is to use this fellowship to support students with high potential to be valuable contributors to the US structural steel construction industry and should strive to fund a doctoral candidate with at least half of the fellowship money.

An amount of \$50,000 will be awarded per year over a four year period to the selected Milek Fellow. Funds are provided to:

- Conduct research meeting the long-term needs of the structural steel industry.
- Assist in leveraging additional outside funds for fellowship related research.
- Develop graduate students for academic and design careers in the structural steel industry.

AISC will not require specific tests or developments. AISC will require annual progress reports and a final report to

be kept in the AISC library and posted on the AISC website. Funds will be provided in the form of a fellowship award. No overhead costs will be covered because AISC is a non-profit organization that uses membership dues for research and other activities.

Funding of a project normally will continue for four years unless the project is terminated by the funded institution, the principal investigator leaves the employment of the funded institution, or the governing Oversight Committee cannot verify that the funds are being used effectively to achieve the program objectives.

Terms and conditions permitting AISC access to and use of the results of the work of the fellowship, rights to provide guidance to the fellow and rights to publicly announce the award of the fellowship will apply to this award as applicable. Research contract terms and conditions are available on request.

#### **Award Administration**

1. The Committee on Research will evaluate applications and candidates and advise on procedures and policies. It will recommend Award recipients. The Vice President will approve the recipient.
2. A Project Advisory Group designated by the AISC Committee on Research will provide guidance during the progress of the work and provide any required advisory assistance.

#### **Eligibility of Candidates:**

1. An AISC Fellow may only receive one Fellowship Award
2. Support of graduate students is restricted to U.S. Citizens or Permanent Residents who are admitted without provision to the appropriate graduate degree program.
3. By the end of the AISC support period, candidates must attempt to:
  - a. Graduate one Doctoral candidate proficient in structural steel and
  - b. Graduate two Masters' students proficient in structural steel
4. The applicant's research program will be based on long-term research as developed or accepted by the AISC Committee on Research.
5. Applicants shall be on a tenure track at a U.S. university but not have had tenure at any institution.
6. Applicants must submit an application including, but not limited to:
  - a. A four-year research program proposal in fabricated structural steel meeting AISC's long-term research requirements, including objective, scope of work, deliverables and expected benefits (see "Application")
  - b. A written plan for any necessary supplemental funding
7. Before award of funds, applicants must demonstrate a reasonable plan and expectation for receipt of any supplemental funding necessary to proceed with the work of the Fellowship.
8. AISC's intent is to have a four-year commitment subject to annual progress review and evaluation.

#### **Selection Process:**

1. The Committee on Research will review applications
2. Selection criteria:
  - a. Institution
    - i. Eligibility (see "Application Item 2")
    - ii. Proposed project constitutes a significant proportional increase in research related to

- structural steel being conducted at the Institution
  - iii. Adequate resources exist to accomplish the proposed research
  - iv. The Institution possesses active and effective instructional programs at both undergraduate and graduate levels in the disciplines pertinent to the proposed research
  - b. Principal Investigator
    - i. Eligibility (see "Eligibility of Candidates")
    - ii. Previous experience and education, especially related to steel
    - iii. Recent and current research, especially related to steel
    - iv. Recent and current teaching activity, especially related to steel
  - c. Proposed Research
    - i. Relevance and potential usefulness of the research results to steel construction in the United States
    - ii. Anticipated quality of the proposed investigation
    - iii. Level of cooperation likely from industry
    - iv. Level of graduate student participation
    - v. Feasibility of the work plan and adequacy of resources
    - vi. Realistic budget
    - vii. Probability that structural steel research will continue after termination of the project
3. The Committee on Research will, by structured voting, forward a recommended candidate to the Director of Research.

### **Application**

1. Potential applicants will be expected to be aware of this program description. They will be expected to agree to the terms stated in the Memorandum of Understanding posted on the AISC website.
2. Applications will be accepted from U.S. colleges and universities that offer degrees at all three levels (undergraduate, masters, and doctoral) in the disciplines that are central to the proposed research topic(s). Furthermore, the undergraduate programs in the relevant disciplines offered by a qualifying institution must be accredited by the appropriate professional boards.
3. At a minimum, an application must contain:
  - a. Applicant name, affiliation, address, telephone and email
  - b. Description of the research to be conducted
  - c. Discussion of the relevance and usefulness of the research to structural steel construction (including design, detailing, fabrication, erection, maintenance, renovation, materials, protection from corrosion and other detrimental factors, and management)
  - d. Work plan and schedule
  - e. Schedule showing the duration and level of support of every graduate student who will participate (graduate students need not be named or selected at this stage)
  - f. Identification and curriculum vitae of the faculty member who will serve as Principal Investigator, including prior and current research (especially relating to steel) and summary of instructional responsibilities for the past three years.

- g. Identification of closely related research by the Principal Investigator that is being conducted or for which funding is pending
  - h. Description of facilities and equipment that will be used for the proposed project
  - i. Identification of potential industrial and governmental sources of complementary funding and support and, if available, documentation of commitments of complementary funding and support (matching funds are not required, but will be considered favorably).
  - j. Budget
  - k. Please note that there is no required page count. Successful applications in the recent past have been on the order of 25 to 40 pages.
4. Applications must be submitted to [research@aisc.org](mailto:research@aisc.org) with "Milek Fellowship" in the subject line.
  5. Applications must be received electronically by August 31, 2018. The award recipient will be notified of funding within eight months.
  6. Proposals relevant to any area of structural steel construction will be considered.

**Review and Renewal:**

1. The Principal Investigator will periodically provide project reports including:
  - a. Résumé, level of support, citizenship status, degree program and progress toward the degree of every student supported on an annual basis
  - b. Summary of technical progress, findings, and publications annually
  - c. An accounting of expenditures on an annual basis (it is understood that expenditures may deviate somewhat from initial budget estimates. However, all expenditures should be consistent with program objectives)
2. Periodic reports will be submitted annually. The AISC Committee on Research will appoint a small Project Advisory Committee. This Committee will meet with the Principal Investigator after commencement of funding, subsequently on an annual basis after commencement of funding and additionally at the discretion of the Project Advisory Committee or the AISC Committee on Research.