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August 15, 2024

NEx Request for Proposals Notice

NEx encourages you to submit proposals focused on the topic described below:

NEx RFP Id: PD25.03

Proposal Title: Development of a Workshop and Course on 3D Printed Concrete Using Polymers and Recycled Materials

Background

The construction industry is increasingly exploring the potential of 3D-printed concrete as a sustainable and efficient method for building complex structures. Integrating polymers and recycled materials into 3D printed concrete offers several benefits, including reducing waste, enhancing material properties, and promoting circular economy practices. However, there is a knowledge gap in understanding the material science and technical considerations required to successfully implement this technology in practical applications.

A comprehensive workshop and course are needed to bridge this gap by introducing a broader audience to the theoretical and practical aspects of 3D-printed concrete using polymers and recycled materials. This initiative will provide participants with both theoretical education and hands-on practical experience, ensuring that the industry is better equipped to adopt and implement this innovative technology.

Proposal Request

NEx is seeking proposals from qualified organizations or institutions to develop a comprehensive workshop and course focused on 3D-printed concrete using polymers and recycled materials. The goal of this project is two-fold:

- To develop an accessible theoretical component covering the fundamental principles, material science, and technical considerations of 3D printed concrete using polymers and recycled materials. This component should be designed for future use by NEx.

- To deliver a practical, hands-on workshop that allows participants to experience the process of creating 3D-printed concrete structures using sustainable materials, offering insights into the equipment, techniques, and best practices for this technology.

Proposals should outline a clear structure for both components of the course, including a timeline, budget, anticipated audience, and strategies for delivering the content to a broad audience.

NEx Mission Statement

Collaborate globally to expand and accelerate the use of nonmetallics in the built environment to drive innovation, research, education, awareness, adoption, and deployment.

NEx is committed to achieving its mission through Research and Development, Standards and Guidelines, Professional Development, and Advocacy and Awareness.

Funding Policy

NEx will impose a limit of 15% on indirect costs (overhead) by project organizations for any project it funds. The organization must waive the remainder of the indirect costs.

Award Amount

NEx does not impose any limit on the overall funding request; however, the anticipated budget for this project is to be around $30,000 to $50,000. Proposals with higher budget estimate will be accepted with information on budget spending relevant to the value added to the project scope. Co-funding and co-sponsoring proposals with other organizations are welcomed.

Proposal Evaluation

NEx project proposals will be evaluated by the NEx Steering Committee. A winning proposal will be forwarded to the NEx Board of Directors with recommendations for funding.

Proposal evaluation criteria will include technical content, methodology, PI's relevant experience, potential impact/ industry adoption, budget and time, proposed deliverables, and outcome. Typically, NEx funded project duration ranges from 6 to 24 months.

Awarded Proposals

The awarded proposal is expected to commence within the first quarter of 2025

- NEx will enter into a contract with the awarded entity. As part of the contract, it is mandated that the overhead or indirect return be set at no more than 15% of the direct cost of the project funding requested from NEx. Any overhead over the maximum allowed 15% that is waived by the awarded entity shall be considered as cost sharing and shall be indicated on the budget table as waived overhead, separate from other co-funding. Non-compliant proposals in this regard shall be returned without review.

- The schedule of payments contingent upon milestone deliverables will be contained in the contract and will include, at a minimum, a final report deliverable to NEx. Quarterly progress reports will be identified in the final contract.

- If principal investigators (PI) from two organizations are collaborating on the project, the award must be to a single organization, which will then subcontract with the second organization.

- NEx will only consider funding projects that involves the use of proprietary products if the goal of the project is to advance knowledge in a particular area of study and not solely on a proprietary product.

- In case of any co-funding arrangement with other organization(s), commitment letter(s) from co-funding organization(s) is required before funds are dispersed from NEx.

- The results of NEx-funded project will be owned by NEx, and possibly by other co-founding organization(s). PI should notify NEx before publishing any results.

Where and How to Submit Proposals

Submitted proposals will be evaluated by the NEx Steering Committee and subject matter experts. Anyone who evaluates a proposal is required to agree and abide by NEx policies on confidentiality and

conflict of interest.

Please email the proposal and supporting information to info@nonmetallic.org, by end of the day, **October 7, 2024**. The email subject line and file name shall include project ID (see top of page 1) and the name of the proposing organization (For example: "RD24.xx University of xyz").

If you have any questions regarding the proposal requirements or process, please contact NEx Technical Director, Aparna Deshmukh (aparna.deshmukh@nonmetallic.org).

Proposals submitted to NEx shall be provided in **one unprotected PDF** using NEx provided template.