# Office Hours AF/CIF/FET/SHF Core Programs
## Division of Computing and Communication Foundations (CCF)

Computer and Information Science and Engineering : Future Computing Research (Future CoRe) NSF 25-543

# CISE-CCF CoRe Program Directors – AF, CIF, FET, SHF

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# Core Solicitation Goals

The NSF Directorate for Computer and Information Science and Engineering (CISE) supports transformative research and education projects that develop new knowledge in all aspects of computing, communications, and information science and engineering through multiple research programs. These programs support research and education activities that advance:

- mathematical, scientific and technological foundations of computing communication, hardware, software and emerging technologies;
- understanding and development of computer and network systems, cyber-physical systems, and cybersecurity as well as their roles in solving complex scientific, engineering, and societal problems; and
- understanding AI and other advanced analytic methods, the data life cycle and the inter-related roles of people, technology, and information.

# Due Dates

While proposals are accepted anytime, proposers are highly encouraged to submit by the **target dates** to ensure consideration during the corresponding panel review cycle.

- **Full Proposal Target Date(s)**:
  September 11, 2025 (Second Thursday in September)
  February 05, 2026 (First Thursday in February)

# Eligibility: Proposals may only be submitted by the following

- **Institutions of Higher Education (IHEs):** Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members.
- **Non-profit, non-academic organizations:** Independent museums, observatories, research laboratories, professional societies and similar organizations located in the U.S. that are directly associated with educational or research activities.
- **Tribal Nations:** An American Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges as a federally recognized tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994

# Eligibility: PI, Organization and Proposal limits

Who May Serve as PI: There are no restrictions beyond PAPPG.

Limit on Number of Proposals per Organization: There are no restrictions.

Limit on Number of Proposals per PI or co-PI: 2

- For CISE Future CoRe Programs, an individual may not serve as a PI, co-PI, or Senior/Key Personnel on more than two proposals submitted within any consecutive 12-month period across all Future CoRe programs listed in this solicitation.

- Proposals submitted to the previous version of CISE core Programs (NSF 24-589); Cyber-Physical Systems (NSF 24-581); Smart and Connected Communities (NSF 25-527) or any other NSF funding opportunities do not count towards the limit on the number of proposals per PI, co-PI or Senior Personnel.

# Eligibility: Follow the Rules

Eligibility constraints will be strictly enforced to treat everyone fairly and consistently. Any proposal that exceeds the two proposal limit at the time of submission for any PI, co-PI, or Senior/Key Personnel will be returned without review. No exceptions will be made. Proposers are strongly encouraged to verify the dates of prior submissions for all personnel on their teams to avoid their proposals being returned without review.

# Budget

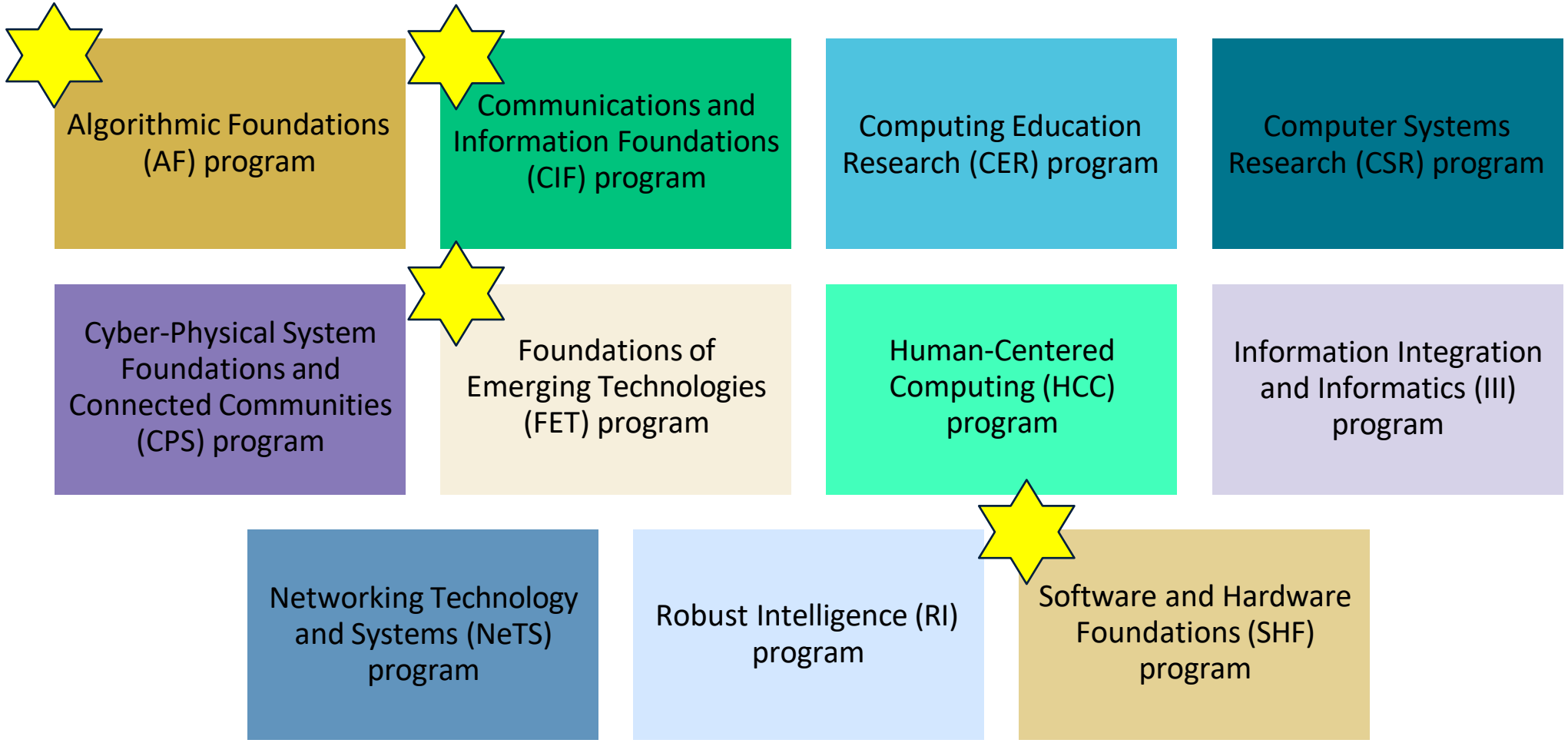
**Awards ideally will have a range of budgets and durations, including projects of smaller scope. Project durations and budgets must be commensurate with the scope of the proposed work.**

- Projects have a maximum limit of $1,000,000 with a duration up to 4 years.

- Typical projects are approximately $150,000 to $250,000 per year and are 3 to 4 years in duration. Projects are discouraged from exceeding $300,000 in any single year.

Estimated program budget, number of awards, and average award size/duration are subject to the availability of funds.

# CISE Core Programs



# Program Descriptions

- **Algorithmic Foundations (AF)** program supports potentially transformative projects in the theory of algorithms and computational complexity, characterized by algorithmic innovation and rigorous analysis

- **Communications and Information Foundations (CIF)** program supports foundational research that addresses the theoretical underpinnings of information acquisition, transmission, and processing in communications and information processing systems

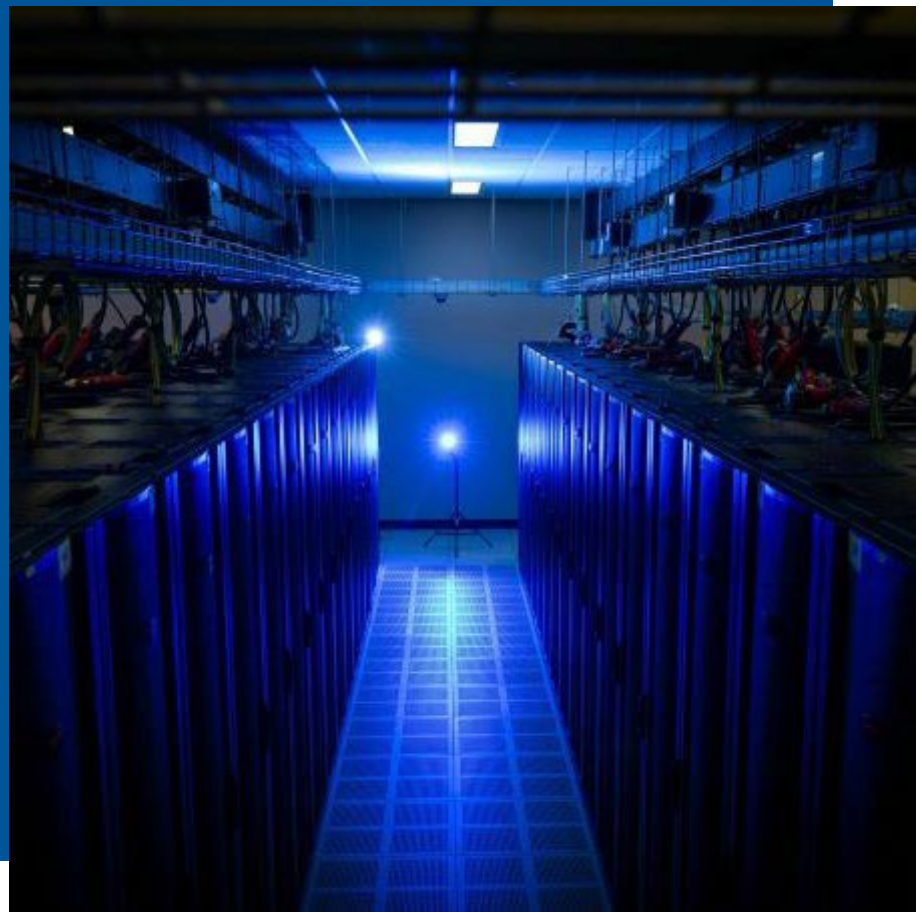
- **Foundations of Emerging Technologies (FET)** program supports foundational research at the intersection of computing and biological systems, nanoscale science and engineering, quantum information science, and other promising disruptive technologies supporting novel computing/communication models

- **Software and Hardware Foundations (SHF)** program supports foundational research in the design, verification, operation, utilization and evaluation of computer hardware and software through novel approaches, robust theories, high-leverage tools, and lasting principles

# Expanding Geographic and Institutional Range in Computer and Information Science and Engineering

- NSF CISE encourages proposal submissions from EPSCoR-eligible institutions to the CISE Future Computing Research programs, with an aim to enhance engagement within the science, technology, engineering, and mathematics (STEM) enterprise, specifically associated with geographic location, and thereby enabling the jurisdiction's national competitiveness. Through this initiative, CISE aims to promote funded activities that enable sustainable growth in research enterprise in EPSCoR jurisdictions. Collaborative proposals among the EPSCoR and Non-EPSCoR-eligible jurisdictions that are led by EPSCoR institutions are particularly welcomed.

# Intellectual Merit



Importance of proposed activity:

Should this be done?

- to advance knowledge and understanding
- within the field and across fields
- creative, original, or potentially transformative research
- significance of expected contributions

How well conceived and organized is the proposed activity?

Can this be done?

- Soundness and feasibility of approach, evaluation, research plan
- How qualified is the team to conduct the proposed research
- Data Management Plan
- Mentoring Plan
- Access to necessary resources, equipment, facilities, etc.
- Requested support (budget)

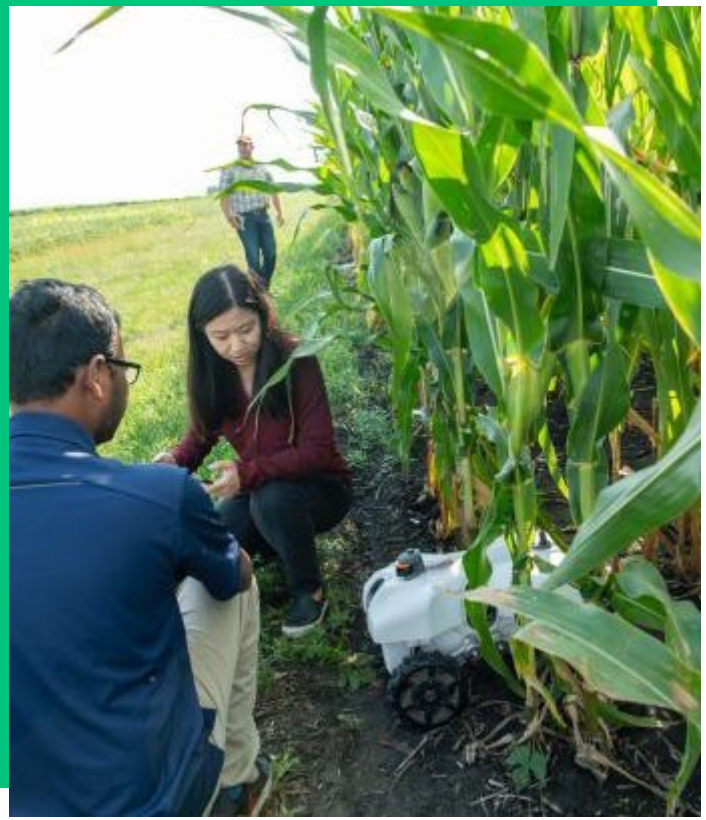
# Intellectual Merit

Encompasses the potential to advance knowledge

Considerations

1. What is the potential for the proposed activity to advance knowledge and understanding within its own field or across different fields
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or organization to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

# Broader Impacts



Accomplished through

- The research itself
- Activities that are directly related to specific research projects, AND/OR
- Activities that are supported by, but complementary to the project.

Considerations

1. What is the potential for the proposed activity to benefit society or advance desired societal outcomes?
2. To what extent do the proposed activities suggest and explore creative, original or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized and based on sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team or institution to conduct the proposed activities?
5. Are there adequate resources available to the principal investigator (either at the home institution or through collaborations) to carry out the proposed activities?

# Broader Impacts

These examples should not be considered either comprehensive or prescriptive.

Proposers may include appropriate outcomes not covered by these examples.

The Foundation shall apply a broader impacts review criterion to identify and demonstrate project support of the following goals:

1. Increasing the economic competitiveness of the United States.
2. Advancing of the health and welfare of the American public.
3. Supporting the national defense of the United States.
4. Enhancing partnerships between academia and industry in the United States.
5. Developing an American STEM workforce that is globally competitive through improved pre-kindergarten through grade 12 STEM education and teacher development, and improved undergraduate STEM education and instruction.
6. Improving public scientific literacy and engagement with science and technology in the United States.
7. Expanding participation of women and individuals from underrepresented groups in STEM.

(P.L. 114-329, "American Innovation and Competitiveness Act of 2017")

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