Google

2024 Google Climate Action Research Awards (China)

Google is committed to supporting global efforts to combat climate change. Last year's 28th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (<u>COP28</u>) marked the conclusion of the first "global stocktake" of the world's efforts to combat climate change under the Paris Agreement. The stocktake shows that progress is too slow in all areas of climate action. Google is looking to fund and actively collaborate with the research community in China, exploring opportunities and pathways to contribute to accelerating progress in climate action, particularly using technologies such as Al/ML.

The 2024 Google Climate Action Research Awards (China) aims to fund research from Chinese university institutions to advance climate solutions. This year, under the theme of Climate Action, we invite proposals that address China's unique climate challenges and contribute to global efforts for carbon neutrality and sustainable development.

We are open to a wide range of topics in China, including but not limited to the following topic areas:

- Blue Carbon Ecosystems: Investigate the role of China's coastal wetlands (mangroves, salt marshes, seagrasses) and oceans in carbon sequestration, climate resilience, and coastal protection.
- Carbon Accounting & Emission Reduction: Develop innovative advancements for accurate carbon accounting and explore strategies for reducing emissions in key sectors (energy, industry, transportation) and best ways to track and account for reductions.
- Climate Modeling & Risk Assessment: Enhance climate models to better predict regional impacts in China and assess climate risks for vulnerable communities and ecosystems.
- Greenhouse Gas Transformation & Utilization: Research technologies to capture, transform, and utilize greenhouse gasses.

Proposals should address the following:

- Feasibility of approach for applications made available within the next 3-5 years
- Scalability of approach over time, including cost considerations (i.e., \$/tCO2 removed)

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- Considerations for optimizing ease of implementation of new solutions
- Methods and scientific standards for measuring success
- Demonstrate how research solutions directly contribute to achieving China's specific climate goals and national strategies
- Considerations for minimizing externalities, including responsibility considerations for ecological & human impact
- (Optional) Identify why the particular problem space of the proposal could be meaningfully accelerated by AI/ML

Award information

The 2024 Google Climate Action Research Awards (China) will fund research projects of up to two years duration, requiring up to three Ph.D. students or equivalent support (i.e., post-docs).

The funding amount for a single award ranges from US\$ 30K to US\$ 60K, and the specific amount will be determined by the review committee based on the evaluation of your proposal.

Awardees will have the opportunity to participate in check-ins with researchers at Google with relevant field expertise.



Guidance on proposals

We request submitted research proposals to use the format below, outlining the research goals, resource estimates and proposed modalities and be no longer than three pages in length (including references).

We believe strongly in open access and in supporting projects whose output will be made available to the public and to other researchers. For this reason, we ask applicants Principal Investigators to include a brief statement about what they intend to do with the output of their work, and we strongly prefer projects that intend to publish and/or contribute to the academic community.

How to apply

The program is open to active researchers at degree-granting universities and academic research institutions who are advising students and conducting research. Apply by submitting the application to <u>eastasia-ur@google.com</u> by Wednesday, June 5, 2024.

Proposal in PDF format must include these items and be no longer than 3 pages:

• Proposal title

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- Principal Investigator (PI) full name, contact information
- Co-PIs' full names, contact information
- Affiliation (university, school, college, and/or department)
- Research objectives/Goals/Hypothesis and expected results with timeline (i.e., Year 1, Year 2, etc.)
- Proposed approach and how this relates to prior work in the area (including your own, if relevant)
- Expected Impact/Benefit to research community
- Disclosure policy: a short description of what you intend to do with the output of your project (e.g., publications, open-sourcing code, making data sets public, etc.)
- Budget request and general breakdown

We request all applications be submitted in English. Do not submit any confidential or proprietary information through this application as the details of your project proposal will be shared with internal and external experts for evaluation.

We look forward to receiving your proposal and collaborating with you on this exciting program.

FAQ

I am employed full-time at a university, but I am not a professor. Can I apply?

The program is open to active faculty members at degree-granting institutions who are advising students and conducting research and Principal Investigators employed at universities and academic research institutions.

What is the disclosure policy for the proposals?

Our goal is to support work where the output will be made available to the broader research community. To that end, we ask that you provide us with a few sentences sharing what you intend to do with the output of your project (e.g., publications, open-sourcing code, making data sets public, etc.).

Will feedback be provided on the proposal that we submit?

Reviewers will do their best to provide limited feedback on submitted proposals, but this is not guaranteed.

How are applications evaluated?

Applications are evaluated on the strength of the research proposal, research impact, feasibility, and responsible research. Proposals should include the direction and any plans of where your work is going, in addition to a comprehensive description of the research you are pursuing. **Incomplete proposals will not be considered.**



Is it possible to receive an extension?

No, all applications must be submitted by 11:59 pm (Chinese Standard Time), Wednesday, June 5, 2024. Late submissions will not be reviewed.

How can I ask additional questions?

We will be providing limited email support via <u>eastasia-ur@google.com</u>. Due to the volume of emails we receive, we may not be able to respond to questions quickly.



Open advice to proposal writers

Here's some guidance on how you strengthen your short proposal. A good research grant proposal:

- Clearly specifies a problem. Good research is driven by a great problem or question, and a good proposal starts with a clearly specified one.
- Describes a specific, credible, relevant outcome. Try to identify a specific and appropriately sized outcome to give us a clear notion of what the research award would be enabling. What will likely come to be that might otherwise not happen? While this outcome should be a decisive step toward achieving your vision, it generally won't be adequate to completely achieve it. It often helps to describe both the minimum that is likely to be accomplished and a potential best case. Since picking the right datasets and test cases is often important, tell us which ones you plan to use.
- Crisply differentiates the proposed contribution from prior work. Please apply normal practices (citations, etc.) for documenting how your work will materially advance the state of the art. Make it clear how your work will be changing the state of the art and not simply trying to match it.
- Tells us how the research challenge(s) will be addressed. Successful research projects combine a great problem with ideas for solutions, too. We recognize that all the answers won't be known yet, but we'd like to feel that the direction has been established and a plausible path has been identified. (Try to avoid proposals of the form "We want to look at problem X".) It's hard to have a big impact without taking risks, but please identify what the difficulties are likely to be and how you plan to mitigate them. It may help to explain how you succeeded in addressing analogous problems in other projects.
- Puts the proposed work in context. Most projects we fund also have support from other sources. To help us understand the expected impact of Google support, please explain what funding you already have for this area of research and how the proposed work relates to your existing plans. Do you plan to build a capability for other research, provide a tool, reproduce a prior result, collaborate with others to try



something out, follow up on a promising idea, or explore a new one? All are potentially of interest; we just want to know.

- Make the case to a non-expert. While we try to have your proposal reviewed by a Google expert in your field, it will also be read by non-experts, so please make at least the motivation and outcomes broadly accessible.
- Tell us how this research impacts an underserved community and why you are qualified to do this research. It can be through social, cultural, or regional expertise specifically related to the research to conduct successful work.
- The proposal should show promise that it will benefit society or advance desired societal outcomes.