

# Innovation Grants

Informational webinar



Climate Change AI

September 2021

# Disclaimer



All information on these slides is subject to change, and may contain typos or inadvertent omissions.

For the most accurate and up-to-date information, please see the grants website:

[https://www.climatechange.ai/calls/innovation\\_grants](https://www.climatechange.ai/calls/innovation_grants)

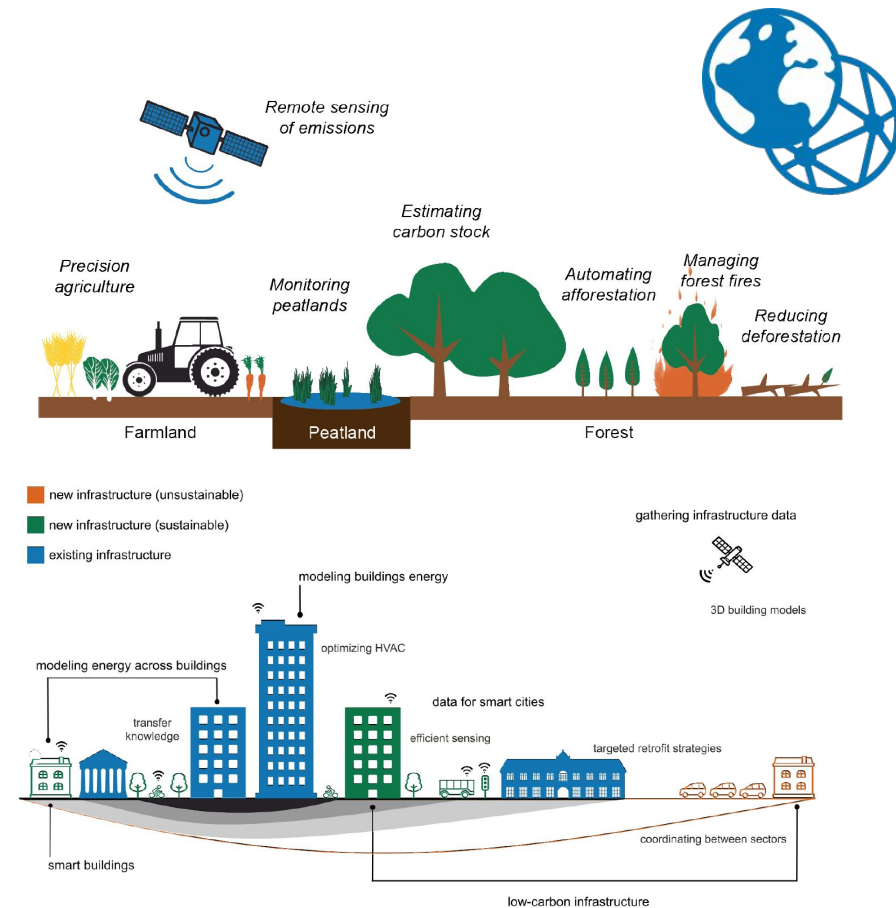
# About Climate Change AI

Catalyzing impactful work at the intersection of climate change and AI

- A global **network** of researchers, policymakers, entrepreneurs, etc.
- Digital **resources** for working in this space
- **Advice** for relevant stakeholders
- **Events** for knowledge-sharing



		Causal inference	Computer vision	Interpretable models	NLP	RL & Control	Time-series analysis	Transfer learning	Uncertainty quantification	Unsupervised learning
Mitigation	Electricity systems									
	Enabling low-carbon electricity		•	•		•	•		•	•
	Reducing current-system impacts		•				•		•	•
	Ensuring global impact		•					•		•
	Transportation									
	Reducing transport activity		•				•		•	•
	Improving vehicle efficiency		•			•				
	Alternative fuels & electrification					•				•
	Modal shift	•	•				•		•	
	Buildings and cities									
	Optimizing buildings	•				•	•	•		
	Urban planning		•				•	•		•
	The future of cities				•			•	•	•
	Industry									
	Optimizing supply chains		•			•	•			
	Improving materials									•
	Production & energy		•	•		•				
	Farms & forests									
	Remote sensing of emissions		•							
	Precision agriculture		•			•	•			
	Monitoring peatlands		•							
	Managing forests		•			•	•			
Adaptation	Carbon dioxide removal									
	Direct air capture									•
	Sequestering CO <sub>2</sub>		•						•	•
	Climate prediction									
	Uniting data, ML & climate science		•	•			•		•	
	Forecasting extreme events		•	•			•		•	
	Societal impacts									
	Ecology		•					•		
	Infrastructure					•	•		•	
	Social systems		•				•			•
	Crisis		•		•					
	Solar re-engineering									



Tackling Climate Change with Machine Learning

See: [www.climatechange.ai/summaries](http://www.climatechange.ai/summaries)

# Conferences / Events



**International Conf on Machine Learning (ICML)**, 2019

**Neural Information Processing Systems (NeurIPS)**, 2019

**UN Climate Change Conference (COP25)**, 2019

**Applied Machine Learning Days (AMLD)**, 2020

**Int'l Conf on Learning Representations (ICLR)**, 2020

**TEDxClimateChangeAI**, 2020

**Neural Information Processing Systems (NeurIPS)**, 2020

**International Conf on Machine Learning (ICML)**, 2021

*Video recordings available online*



NeurIPS 2019

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**Neural Information Processing Systems (NeurIPS), Dec 2021**

# Webinars



*Register for our  
Oct webinar*

*Watch previous  
Webinars online*

## Machine learning for Climate Science and Earth Observation



**Dr. Gustau Camps-Valls**

Professor, Universitat de València  
IEEE Fellow, ELLIS Fellow



**Dr. Maïke Sonnewald**

Associate Research Scholar,  
Princeton University

Tuesday, October 19, 2021  
11:00 AM - 12:00 PM US Eastern Time  
More details coming soon.

**Register:**


[https://www.climatechange.ai/register/ccai\\_webinar](https://www.climatechange.ai/register/ccai_webinar)

## Past Webinars

Date	Webinar
July 14, 2021	<a href="#">Machine learning in climate finance</a> ► Details: (click to expand)
June 18, 2021	<a href="#">Spatial planning of low-carbon cities with machine learning</a> ► Details: (click to expand)
May 21, 2021	<a href="#">Coastal Adaptation to Sea Level Rise</a> ► Details: (click to expand)
May 6, 2021	<a href="#">Applied Machine Learning for Agriculture and Forest Management in Changing Climate</a> ► Details: (click to expand)




# Circle community platform



Climate Change AI


Q Search


+




Home


▼ CCAI Internal


 general


 community management


▼ CCAI Community


 Hello 7


 Research Topics & Ideas


 Webinars


 Happy Hour


 Interesting Reads


 CCAI Wiki


 Jobs & Opportunities


 Community Directory

 Q&A

 Random

 News 1

 Events



## Welcome to the Climate Change AI community!

We are excited to have you here!

This is a place to *connect*, *share* and *discuss* all things related to climate change & machine learning 🌍 🔥 🧠 💻

If this is your first time here, you might want to head over to the 🙋 Hello channel and introduce yourself.

New Post

Get Started

☐

Fill out your profile

☐

Set a profile picture

☒

Join 3 spaces

☐

Add a comment☐

Trending Posts



Hi! I'm a co-founding member of CCAI, I'm so happy to see the community growing! I am the peer review/publications lead. I recently started as faculty at the University of Toronto, interests: AI/representation



# Join the Climate Change AI network



## Digital resources

**Foundational report** on climate change and AI with datasets and add'l resources

**Resource Wiki** & meetups

+ Forecasting supply and demand

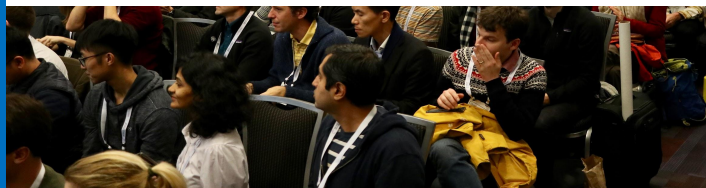
High Leverage

+ Improving scheduling and flexible demand

## Conferences and events

**Next workshop** (virtual) @ NeurIPS

- Attend: Dec 13 or 14



## Funding programs

**Global research funding** of \$1.8M available for impactful projects

- Apply by: Oct 15

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Quadrature Climate Foundation

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## Newsletter and community



Climate Change AI Newsletter

In this edition of the Climate Change AI newsletter, we're excited to share opportunities to engage with the wider community, across domains and around the world. Read on to discover meetings, articles, podcasts, and more.

Do you have opportunities to share or other content you would like to see included in the newsletter? Get in touch at [info@climatechange.ai](mailto:info@climatechange.ai). For discussion with fellow readers, follow @ClimateChangeAI on twitter or join our forum.

News



Calls for Submissions



Funding



Projects & Courses



Readings



Jobs

## Webinars and happy hours

**Next webinar:** Oct 19

*Machine learning for Climate Science and Earth Observation*

**Next happy hour:** Oct 6

**Spatial planning of low-carbon cities with machine learning**



**Dr. Jason Cao**  
Professor  
Humphrey School of Public Affairs at the University of Minnesota

**Learn more:**

[www.climatechange.ai](http://www.climatechange.ai)



@ClimateChangeAI



# Innovation Grants program



- Grant amount: Up to USD 150K per proposal, for projects of 12 months in duration. We will award a total of USD 1.8M in grants across all projects.
- Scope: Research projects at the intersection of AI and climate change.
- Eligibility: Principal Investigator must be a faculty member or postdoc at an accredited university or academic research institution in an OECD country. There are no eligibility restrictions on co-Investigators.
- Proposal submission deadline: **Oct 15, 2021 at 23:59** (Anywhere on Earth time, UTC-12)
- Submission site: <https://cmt3.research.microsoft.com/CCAIGrants2021>
- Contact: [grants@climatechange.ai](mailto:grants@climatechange.ai)

Fiscal sponsor:



Supported by:



# Eligibility



- PI must be a faculty member or postdoctoral researcher at an accredited university or academic research institution in an OECD Member country.
- FAQ: Industry research labs & US national labs are NOT eligible as lead institutions.
- No restrictions on co-Investigators (e.g. can be outside OECD or non-academic).
- No aspect of a project should be double funded by other funding bodies.

**OECD Member countries:** Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States

# Potential topics



**OR**

Machine learning / AI

+

Climate change mitigation,  
adaptation, or climate science

**OR**

AI governance in the context of climate change

Assessment of greenhouse gas emissions impacts of AI or  
AI-driven applications

# Dataset requirement and IP



- All projects must propose a new dataset
- Compliant with the FAIR Data Principles (Findable, Accessible, Interoperable and Reusable)
- “Creation” of a dataset may include annotating data with labels, collecting completely new data, collating existing data from multiple sources, creating a data simulator (e.g. for reinforcement learning) that is well-grounded in reality, or open-sourcing existing data that was formerly private.
- All grant IP — e.g., the dataset/simulator produced and (if applicable) trained models or detailed descriptions of architectures and training procedures — must be made publicly available under an open license.

# Evaluation criteria



- Climate relevance
- AI/ML relevance: Sound and appropriate method (not fancy method)
- Dataset quality and impact
- Project pathway to impact
- Ethics
- Feasibility
- Expertise of team

The following will be considered favorably:

- Deployment partners
- Traditionally under-funded areas of work
- Equity

# Timeline



Activity	Date
Call release date	Aug 23, 2021
Informational webinars (register <a href="#">here</a> )	Sept 23 & 27, 2021
<b>Proposal submission deadline</b>	<b>Oct 15, 2021</b>
Notification of results	Dec 10, 2021
Award start date	Jan 10, 2022
Award end date	Jan 10, 2023



# How to submit



- Deadline: October 15, 2021 at 23:59 (Anywhere on Earth time, UTC-12).
- Applications via the CMT website: <https://cmt3.research.microsoft.com/CCAIGrants2021>
- Prepare the following items:
  - Basic information about PI and team (CMT form)
    - The first name in the CMT author list will be treated as the PI
  - Project description (max 12 pages, single pdf)
    - Same order and headers to separate the subsections as given on the website
  - Budget and budget justification (single pdf)
    - Eligible expenses include salaries for Investigators, students, and other research staff; materials, equipment, software, and compute; and expenses associated with conferences and other project-related travel.
    - Institutional overhead at a maximum rate of 10% of the total amount requested
  - CVs of key personnel (single pdf)

## Create New Submission

Welcome to the submission portal for the 2021 Climate Change AI Innovation Grants program. See [https://www.climatechange.ai/calls/innovation\\_grants](https://www.climatechange.ai/calls/innovation_grants) for detailed submission instructions.



### TITLE AND ABSTRACT

\* Title

\* Abstract

2000 characters left

### AUTHORS

You may add your collaborators.

Primary Contact	Email	First Name	Last Name	Organization	Country/Region
<input checked="" type="radio"/>		Lynn	Kaack	Hertie School	Germany

+ Add

Enter email to add new author.

### DOMAIN CONFLICTS

Please enter the domain of each institution (semicolon separated) that authors have a conflict of interest with (example: mit.edu; ox.ac.uk; microsoft.com). More specifically, please list domains of all institutions authors worked for, or have had very close collaboration with, within the last 3 years.

**Note:** It is important that you also enter the domains of authors' current institutions here since CMT does not automatically add them to conflicting domains. Please DO NOT enter the domain of email providers such as gmail.com, yahoo.com, hotmail.com and 163.com as institution domains.

## Q&A



- Please submit your questions in the chat
- Try to be as general as possible so other participants learn from the answers
- Understand that we cannot answer certain questions due to fairness reasons
- If a question wasn't addressed, email to: [grants@climatechange.ai](mailto:grants@climatechange.ai)