



2022 Call for Proposals

CITRIS Seed Funding Program



Virtual Info Session: September 22, 11:00–11:45 a.m.

Today's Agenda

| | | |
|---------|-----------------------------------|------------------------------------|
| 11:00am | Welcome & Introduction | Camille Crittenden, Costas Spanos |
| 11:10am | 2022 Program Overview | Julie Sammons |
| 11:20am | Guidance for Applicants | Julie Sammons and Initiative Leads |
| 11:35am | Q&A | Team |

Welcome from Our Directors

Prof. Costas Spanos
CITRIS Director



Dr. Camille Crittenden
Executive Director



Prof. Saif Islam
CITRIS Davis



Prof. Joshua Viers
CITRIS Merced



Prof. JJ Garcia-Luna-Aceves
CITRIS Santa Cruz



The CITRIS Mission

Connecting four campuses, the Center for Information Technology Research in the Interest of Society and the Banatao Institute (CITRIS) leverage the University of California's strengths to:

Create information technology solutions for society's most pressing challenges.

Advancing a people-centered approach to these societal-scale transformations is central to our vision.



Scope of the Institute

Core Technology

Aviation

Understanding our changing planet from above

Climate & Sustainability

Water, energy, food, buildings, transportation

Health

Digitally-augmented care, analytics, telehealth

People and Robots

Automation, sensing, augmenting human experience

Technology & Society

Policy Lab

Responsible tech development, governance, regulation

EDGE in Tech

Diversity, equity, inclusion and belonging in tech sector

Workforce Innovation Program

Connecting UC students with in-demand career paths

CITRIS Foundry

Supporting innovators in transition from lab to market

Purpose of CITRIS Seed Funding Program

Launched in 2008 as a platform to:

- Identify innovative ideas to benefit society (early signals)
- Catalyze initial work that leads to larger, extramural pursuits
- Leverage the strengths of multiple UC campuses and disciplines

Overview for Researchers

CITRIS Seed Funding Program

Julie Sammons

Knowledge Management Director
Seed Program Lead



Research to Benefit Society: Recent Awards



Global map of agricultural water use

UC Berkeley (CNR: ESPM)

UC Davis (Bio & Ag Eng)

Develop high-res spatial and temporal irrigation models to create a Water Information System using deep learning.

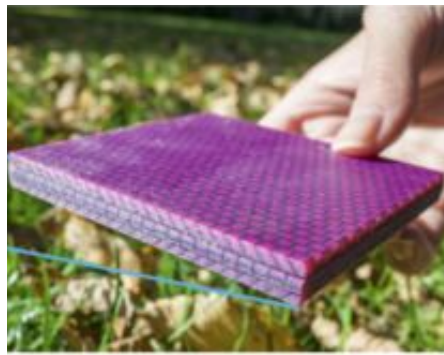


Fire-resilient building materials and sensors

UC Merced (Materials Science)

UC Berkeley (Civil & Enviro Eng)

Design, fabricate and test novel, ecologically-friendly construction materials with integrated performance sensors to offset use of steel.



Microstructured surfaces to reduce drag

UC Berkeley (Mech Eng)

UC Davis (Mech & Aero Eng)

Use computational tools to create a sharkskin-inspired synthetic surface for use in turbines and gas pipelines.



Assessing consumer privacy protections

UC Berkeley (Elec Eng)

UC Davis (Comp Science)

Deploy innovative tracking apps at scale to evaluate opt-out tools and compliance with the California Consumer Privacy Act.

Seeding Success: Safer and Smarter Highways

Can roads be designed to sense and communicate the presence of potential hazards?

Impact: Uses fiber optics to enable fast, localized detection of vehicle, cyclist, pedestrian or seismic safety issues.

Recent Project Outcomes



\$380K support from Kajima, NIPPO



Startup spinoff company created



New testbed facility in Richmond, CA



5 postdoc and grad students engaged



Kenichi Soga

Civil & Environmental Engineering
UC Berkeley



John Harvey

Civil & Environmental Engineering
UC Davis

Seeding Success: Healthcare Solutions at Home

Can human diseases be diagnosed through an easy breath test, including COVID-19?

Impact: Enables real-time monitoring of patients from the comfort of home, using “lab-on-a-chip” wearable technology.

Recent Project Outcomes



\$2.15M further funding, including NIH



Pursuing commercialization pathways



5 publications, *New York Times* feature



11 students involved in research



Cristina Davis
Mech. & Aerospace Engineering
UC Davis



Nicholas Kenyon
Internal Medicine
UC Davis Health

CITRIS Seed Funding: Impact to Date

238

multi-disciplinary
projects advanced

780+

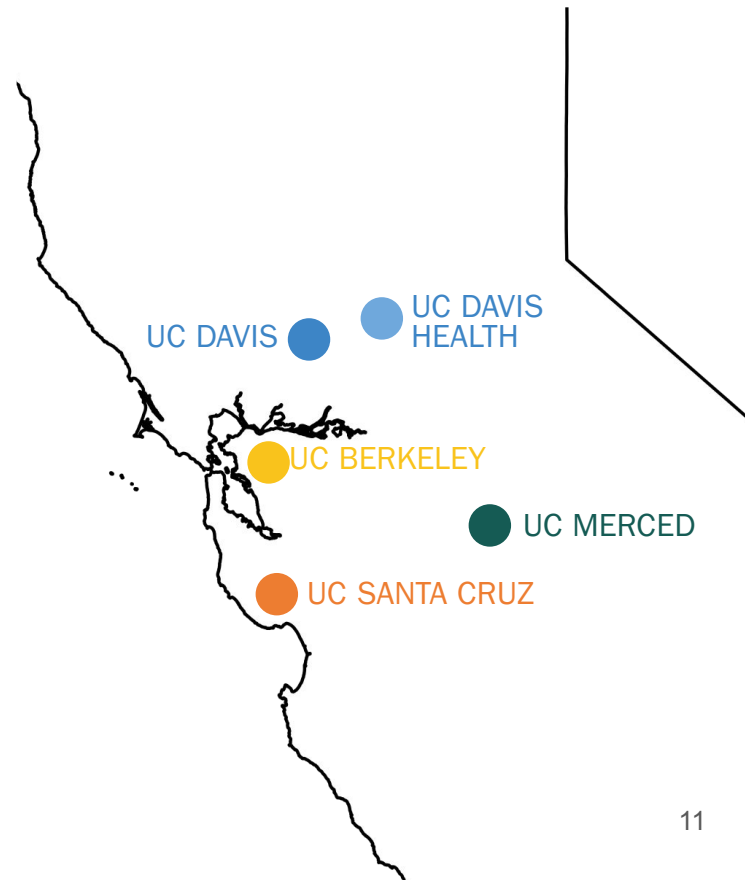
researchers and
UC students funded

\$13.2M

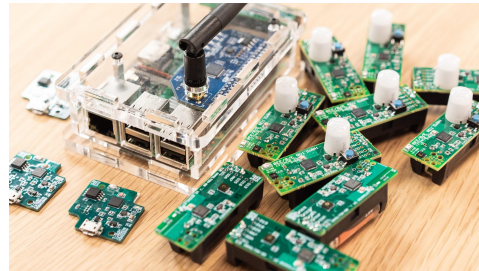
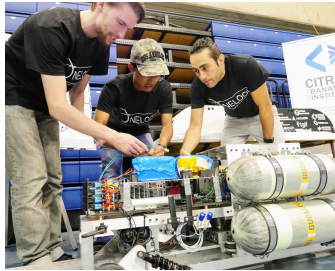
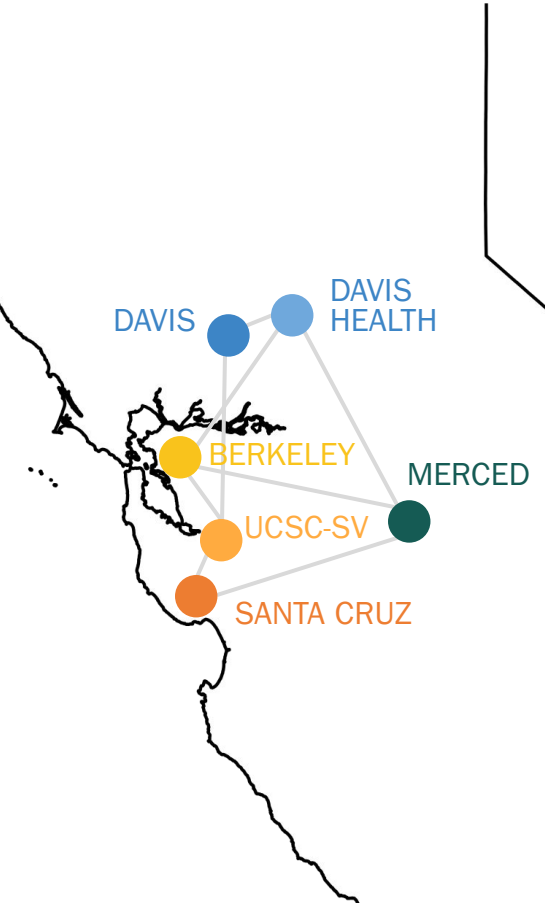
awarded since 2008

4x multiplier
on initial funds

Follow-on funding from: NSF, NIH, DOE, CEC,
Intel, Kajima, Meta, Microsoft, AOL, Samsung,
Mellon Foundation, Gates Foundation



Infrastructure for Multi-Campus Collaboration



Sutardja Dai Hall Testbed
CITRIS Invention Lab
CITRIS Foundry
CITRIS Tech Museum
CITRIS Aviation
Drone Training Academy
Marvell NanoLab
Digital Health Resource Ctr
Center for Virtual Care
VizWall & CAVEs
Banatao Auditorium
Richmond Field Station
GoFab 3D Printing Library
MakerPass & MakerStore
CITRIS Visual Thinking Lab
CITRIS Enviro. Robotics Lab
Pacific Research Platform

Meet Our Team: CITRIS Connectors



Nate Metzler
CITRIS Davis



Leigh Bernacchi
CITRIS Merced



Ravnit Plaha
Special Projects Manager



Tamara Bock
Philanthropic Engagement



Michael Matkin
CITRIS Santa Cruz



Angelica Gonzalez
Finance Manager



Julie Sammons
Program Lead

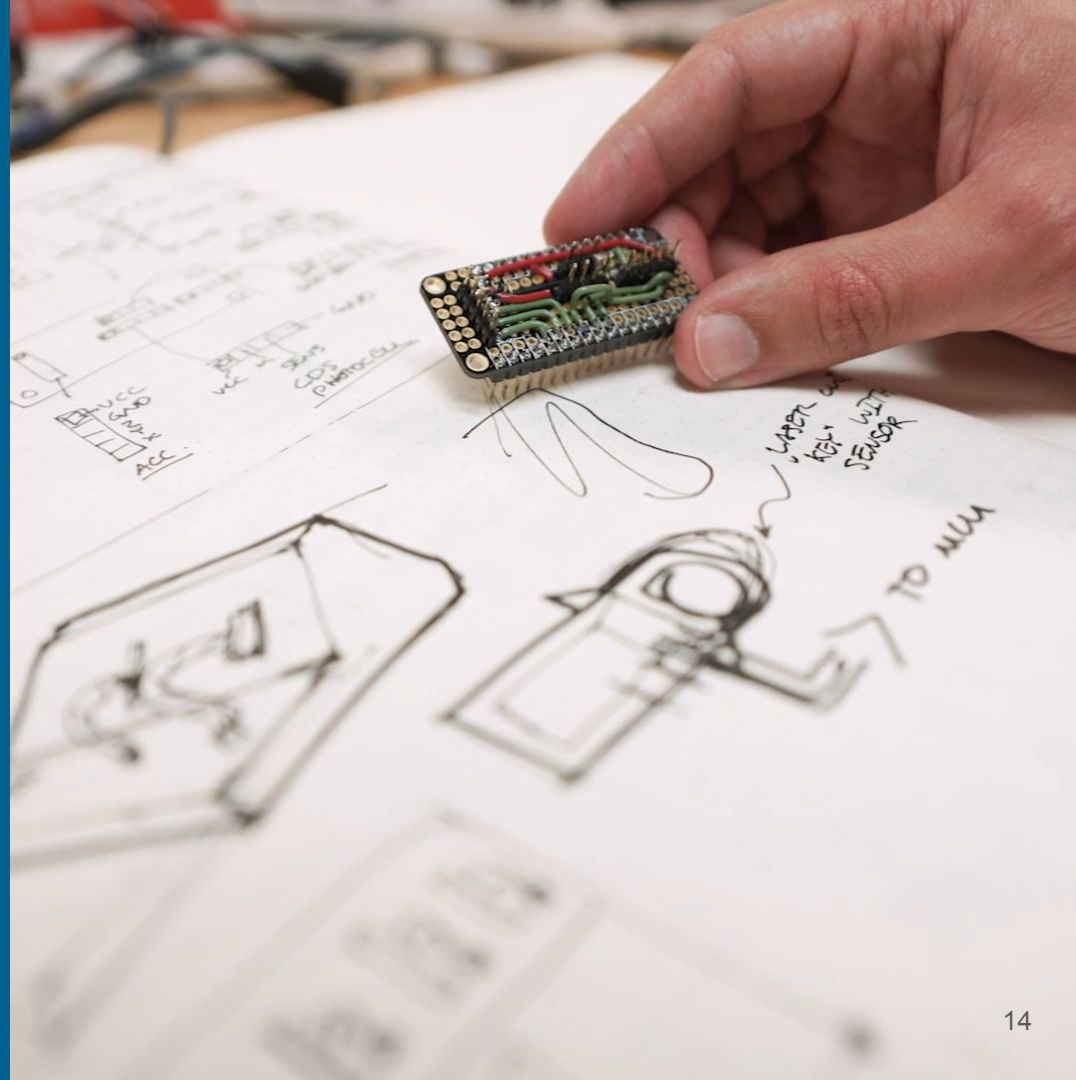


Pushkar Apte
Industry Engagement

2022 Call for Proposals

Guidance for Applicants

bit.ly/citris-seed-funding



1. Review program timelines

JUNE – OCT 10, 2022

Team formation occurs

OCT – DEC 2022

Expert review panels,
awardee selection

**JANUARY 1 or
SEPTEMBER 1, 2023**

Funded projects launch

**SPRING –
FALL 2024**

Project outcomes
are reported

- **August 15:** Application portal opened
- **September 22:** Virtual info session for UC researchers
- **October 10:** Proposals due online at 5:00 p.m. PDT
- **By December 15:** Awardees chosen and notified
- **Jan. 1 or Sept. 1, 2023:** Projects launch with 12-month performance period

2. Choose your category

Aviation for a Changing Planet

Future fuels, delivery, route planning, safety systems, remote sensing applications (e.g., wildfires)

Sustainability and Climate Resilience

Society's life support systems: energy, infrastructure, water, food, housing, transit, hazard mitigation

Digital Health Innovation

Healthy aging, equitable access to care, environmental health hazards, informatics, AI/ML

People and Robots

Robust, reliable, intuitive, safe, and accessible designs for emerging applications and contexts

Semiconductors and Systems

Next-gen devices, architectures and integrations; low-resource designs; sustainable supply chain

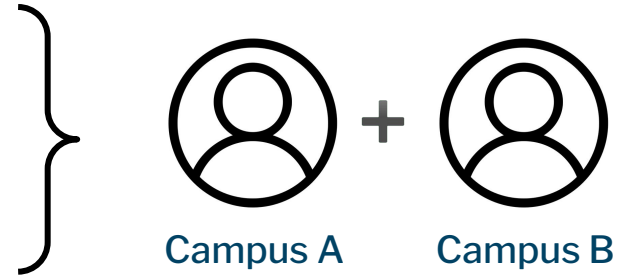
3. Consider the requirements

Project Specifications:

- **\$40K–\$60K per project**
- **12 months of focused work**
- Emerging IT challenges
- Proof-of-concept phase
- Multicampus teams
- + Graduate/postdoc students

Team: at least two PIs from different campuses.

UC Berkeley
UC Davis
UC Davis Health
UC Merced
UC Santa Cruz



Budget: awards are unrestricted, no overhead taken, SPO involvement not necessary.


Funds may not be used for faculty salary or nonresident tuition.

4. Find a collaborator


Home > People

Researchers at CITRIS


| Name | Research Area | Research Initiative | |
|--|---|---|--------------------------------------|
| <input type="text" value="Search by Name..."/> | <input type="text" value="All Research Areas"/> ▾ | <input type="text" value="All Research Initiatives"/> ▾ | <input type="button" value="Reset"/> |




Pieter Abbeel
Pieter Abbeel is Director of the Berkeley Robot Learning Lab and Co-Director of the Berkeley Artificial Intelligence (BAIR) Lab.



Alice Agogino
Roscoe and Elizabeth Hughes Professor of Mechanical Engineering, UC Berkeley



Venkatesh Akella
Professor, UC Davis



George Akerlof
Koshland Professor of Economics, UC Berkeley

Ideas for connecting:

← Browse our online directory


Seek peer suggestions / intros

Contact your CITRIS campus leads

Message seedteam@citris-uc.org

Collaborators outside of engineering/STEM are welcome!

5. Gather your team's information

- ❑ Project title
 - ❑ RFP theme
 - ❑ Public-facing summary (*200 words*)
 - ❑ Narrative (*1000 words*)
 - ❑ Impact statement (*500 words*)
 - ❑ Downstream applications (*300 words*)
 - ❑ Budget explanation (*200 words*)
 - ❑ Citations and/or illustrative graphic file (*optional*)
 - ❑ Name, campus, department and CV link for each Principal Investigator
 - **Blank application is provided as guide (downloadable .pdf)**
-  **Optional:**

 - ❑ Fundraising opt-in?
 - ❑ Societal Impact area(s):
Tech Policy, Diversity,
Workforce Development

6. Apply online (submit from Lead PI)

The screenshot shows the CITRIS AND THE BANATAO INSTITUTE application portal. At the top right, there are links for "Log In" and a blue "Register" button. The header features the CITRIS AND THE BANATAO INSTITUTE logo and the text "CITRIS Opportunities". The main content area is divided into two columns. The left column is titled "2022 CITRIS Core Seed Funding" and contains the following text: "This application portal for the 2022 funding cycle opened on **August 15, 2022**. Proposals will be due here on **October 10, 2022 by 5:00PM Pacific Time**." Below this, it says "Guidance for applicants:" followed by a bulleted list: "• If this is your first time submitting a proposal, please click the grey 'Register' button at top of next page." "• Otherwise, please use your prior account to log in and submit a new proposal." "• We recommend the lead principal investigator (PI) initiates the online application for each proposal team. While not required, this step can make the submission and award correspondence easier for your team." "• Within the application form, there will be a clickable option to give co-PIs and assistants the ability to view or edit the proposal draft." "• Please use the primary UC campus email addresses for all included PIs to ensure messages are received." At the bottom of the left column, it says "Information about the [2022 Request for Proposals \(RFP\)](#) is available here." The right column displays the funding "Value" as "\$40 to \$60k" and features a large blue "APPLY" button. Below the button, it states "Opens Aug 15 2022 05:00 AM (PDT)" and "Deadline Oct 10 2022 05:00 PM (PDT)".

2022 CITRIS Core Seed Funding

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- Otherwise, please use your prior account to log in and submit a new proposal.
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Value
\$40 to \$60k

APPLY

Opens
Aug 15 2022 05:00 AM (PDT)

Deadline
Oct 10 2022 05:00 PM (PDT)

1. Click "Apply" button
2. Register as new user (or) log in
3. Complete eligibility step
4. Fill in online application form
5. Invite collaborators/editors
6. Review and submit

Email seedteam@citris-uc.org
if any assistance needed.

7. Complete post-award reporting

Help us promote your results! After the performance period ends, we request a brief report from the research team with:

- ❑ Summary of major findings
- ❑ Resulting publications, presentations or media interest
- ❑ Follow-on funding: confirmed and pending
- ❑ Commercialization pathways: spinoffs, industry engagement, etc.?
- ❑ Students engaged in the project? Other collaborators?
- ❑ **Next steps planned**

How to write a strong proposal

1. **Potential for societal impact:** Is the challenge and its scope clearly described? What are anticipated societal benefits and effects of this work?
2. **Potential for scale up and follow-on funding:** Could proof-of-concept results support a larger award in 1–2 years? Has topic been identified by government, industry or philanthropic sources as a priority funding area?
3. **Alignment with the CITRIS focus:** Does project apply or advance *information technologies* in novel ways? Suitable for publication/conference?
4. **Feasibility:** Can objectives be achieved in a 12-month performance period?
5. Diverse views: encourage inclusion of pre-tenure faculty, multiple disciplines.

Societal impact considerations

Perspectives from CITRIS Directors

Solutions that address broader societal impacts are welcome in any category. Consider how your initial proposal or follow-on work might address:

- Policy and regulation
- Diversity, equity and inclusion
- Workforce considerations



Brandie Nonnecke
Director, CITRIS Policy Lab



Jill Finlayson
Director, EDGE in Tech Initiative

Info Session Recap: Q&A

- ① **Type of funding?** \$40K–\$60K per award, 12 month performance period
Early stage, proof-of-concept, benefit society
- ② **Who is eligible?** Principal investigator teams: UCB, UCD, UCM, UCSC
- ③ **How to apply?** **Online by October 10 at 5:00 p.m.**
- ④ **Additional resources?** Provided on program webpage. Slides will be posted.
- ⑤ **Contact for questions?** Email seedteam@citris-uc.org.



**We look forward
to receiving your
proposals**

Seed Funding Team Contact:
seedteam@citris-uc.org

Program Webpage:
bit.ly/22citris-seed-funding

