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**Vol XX. August 2020**

Fall is here, and our Cal Energy Corps interns are back in classes fresh off of their summer internships. Read on for more on their progress, updates from the BECC conference, and notable accomplishments from our CIEE team.

## Upcoming Events

**Wednesdays in September**  
[CITRIS Research Exchange](#)

## In the News

[In a First, Renewable Energy is Poised to Eclipse Coal in US](#)

[Another Reason to Cut Down on Plastics](#)





## **BECC 2020 Virtual Conference: Early Bird Registration ends in two weeks!**

There are only two weeks left to get your BECC conference registration at a discounted rate!

The Behavior, Energy and Climate Change (BECC) 2020 conference will now be 100% virtual! Taking place on **December 7th through the 10th**, the virtual conference will have panel discussions, plenaries, networking time, workshops, and solutions sessions, with all sessions recorded and available on-demand.

Now in its 14th year, the Behavior Energy and Climate Change conference brings together social scientists, practitioners, utilities, academics, governments, businesses, and non-profits to share and disseminate best practices and research to encourage behavior change for energy and carbon reduction. Come present your work and learn from others about innovative methods, practices and technologies, how to evaluate these programs, understand why individuals and groups change, and make these transitions in fair and equitable ways.

This year, BECC is honored to bring economist and bestselling author Juliet B. Schor as the 2020 keynote speaker. A sociology professor at Boston College, Dr. Schor has studied trends in working time, consumerism, the relationship between work and family, women's issues and economic inequality, and concerns about climate change in the environment. In her talk, she will report on a decade of research on the "sharing economy," including both the large, corporate platforms and smaller community initiatives, and their implications for energy and climate.

Registration is now open! Join BECC 2020 and connect with speakers, friends, and new potential business contacts – there will be many chances to network, such as free yoga classes before each conference day, fun online activities, and a film clip festival. Registration at the Early Bird price of \$195 is available through Friday, September 11th, so be sure to register soon!

**[Register Here](#)**

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## 2020 Champions of Energy Efficiency

### THANK YOU!

Thank you for your  
outstanding contributions to  
the ACEEE Board of Directors



**Carl Blumstein**  
Berkeley Energy and Climate Institute  
ACEEE board member, 1985- 2020



**Steve Morgan**  
Clean Energy Solutions, Inc.,  
ACEEE board member, 1997-2020



## CIEE Director Carl Blumstein named ACEEE Champion of Energy Efficiency 2020

A hearty congratulations to our Director, Dr. Carl Blumstein, who was recently named one of the American Council for an Energy-Efficient Economy (ACEEE)'s Champions of Energy Efficiency for this year, for his innumerable contributions to the organization over the 40 years of its existence. Carl himself has served as the Chair of the ACEEE's board of directors for over 20 years and has only recently stepped down from the position. We are sure that he will be missed at ACEEE and are grateful for his continued leadership in energy efficiency research here at CIEE.

## CIEE's Sascha von Meier Interviewed for Popular Science on our Electric Grid Infrastructure

Our electric grid research director, Dr. Sascha von Meier, was recently interviewed in a Popular Science article on our deteriorating national electric grid infrastructure. According to one analysis, the United States has the most power outages out of any developed nation in the world, and there are multiple reasons for why that is the case.

One underlying problem that Dr. von Meier identifies is that much if not most of the electric grid infrastructure is near the end of its life—most of the modern grid was built in the 1950's and '60's with an expected lifespan around fifty years. While the grid was built with expected future demand accounted for, we are unfortunately reaching capacity, and the equipment itself is starting to burn out.

Maintenance is needed, surely, but grid maintenance is not something that has been historically prioritized, and has been implemented at a glacial pace. Trees are to blame for most outages—weather sending trees crashing down into power lines—so the utilities are responsible for trimming back growth that would create hazardous conditions should inclement weather strike. Thus, in forested areas, the single biggest cost to utilities is tree maintenance, according to B Don Russell, an electrical engineer at Texas A&M University.

And with extreme weather cases on the rise due to our changing climate, as Dr. von Meier points out in the article, the need to maintain the grid is higher now more than ever, as our current grid infrastructure will be put to the test even more than it is already in the coming years. “We’ve become more vulnerable,” says von Meier. “Climate change in coming decades is going to have a profound impact.”

For more solutions to this infrastructure crisis, including one of CIEE’s signature initiatives, the microgrid, you can read the full article on Popular Science’s [website](#).



## CITRIS 2020 Seed Funding

The CITRIS Core Seed Funding Program invites Principal Investigators at UC Berkeley, UC Davis, UC Davis Health, UC Merced, and UC Santa Cruz to apply for seed funding that advances CITRIS and the Banatao Institute’s research thrusts, strengthens UC campus connections, and drives novel technology applications.

- \$40,000 to \$60,000 per 12-month project
- Six proposal categories for impact through innovation

Previously funded projects have attracted more than \$60 million in follow-on support from federal, state, industrial, and private sources including the NSF, NIH, DOE, Intel, Microsoft, Mellon Foundation, and the Bill & Melinda Gates Foundation

Need help making cross-campus connections? Please complete the Seed Funding [Team Formation Support form](#) to receive help locating a co-PI.

Please refer to our [Info Session Presentation](#) for more information.



## EcoBlock Overview Video Now Live!

We're proud to share this video overview on one of our signature initiatives, the EcoBlock project, helmed by Drs. Therese Pepper and Sascha von Meier. Give it a watch!



# Upcoming Events





## CITRIS Research Exchange

The CITRIS Research Exchange returns for the Fall Semester with a webinar on Wednesday, September 9th!

Free and open to the public, the CITRIS Research Exchange offers fresh perspectives on information technology and society from distinguished academic, industry, and civic leaders. Each seminar takes place on Wednesdays from 12:00 pm to 1:00 pm via Zoom.

This webinar is titled “Inclusive Workforce Strategies: Enhancing the Future of Public Sector Work,” and will feature speakers Elana Zeide (PULSE Fellow in Artificial Intelligence, Law & Policy, UCLA), Saurabh Sanghvi (Associate Partner, McKinsey & Company), and Scott Mauvais (Director of AI & Global Partnerships, Microsoft Philanthropies); and will be moderated by Brandie Nonnecke, our CITRIS Policy Lab Director. We encourage you to attend, and you can see the full schedule of Research Exchange webinars [here](#).



## US Department of Energy Solar Decathlon Applications Open, Close on October 15th

The U.S. Department of Energy Solar Decathlon® is a collegiate competition, comprising 10 contests, that challenges student teams to design and build highly efficient and innovative buildings powered by renewable energy. The combined competition features two tracks, the Design Challenge and the Build Challenge. The annual [Design Challenge](#) spans one or two academic semesters and inspires students to design residential or commercial building solutions that are evaluated for how well they meet the nation's demand for energy-efficient, innovative, cost-effective, and resilient buildings.

The biennial [Build Challenge](#) spans two years and inspires students to design and build cutting-edge and highly-efficient residential houses that are displayed locally in their communities. The 2021 Design Challenge [team application](#) is due on October 20, 2020 at 5 p.m. EDT; all teams who apply are accepted as participants. The next edition of the Build Challenge will kick off in 2021, with the release of the competition Rules, and conclude in 2023. If you are interested in learning more about the 2023 Build Challenge, send an email

to the Solar Decathlon Organizers at [SDbuild@nrel.gov](mailto:SDbuild@nrel.gov) and they'll pass along important updates and announcements about the competition.

# Monthly Spotlight



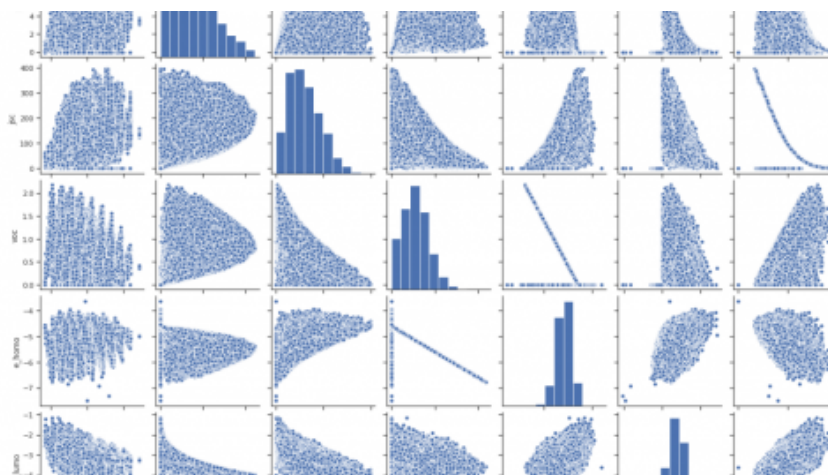
cal energy corps

## Blog Post Run-Down Volume 3

Our Cal Energy Corps summer internships have finished! Over these past few months, interns have been working to complete their research and develop new skills. They will be presenting their work in the CEC Symposium to come in September. This year's virtual Symposium will have our students present their research projects to the university community, their peers and mentors, as well as their friends and family. Let's look back on some of the experience our students had during the last weeks of their internships.

With the Lawrence Berkeley National Laboratory, Reina Wang has been discovering new solar-capturing molecules with interpretable machines for her internship. Waking up at 5 am on the first day, Reina has since worked tirelessly to learn the information presented to her and more.

*"It wasn't merely algorithms and libraries and commands that I learned in the last two months, either. Through training and testing different models, I developed a lot of good coding habits. Since I needed to showcase my code to other people, I got into the habit of documenting each class and function and took time to make sure that it was clean and legible. I also learned to thoroughly consider different graphical ways of presenting my results to better emphasize different trends in the data."*

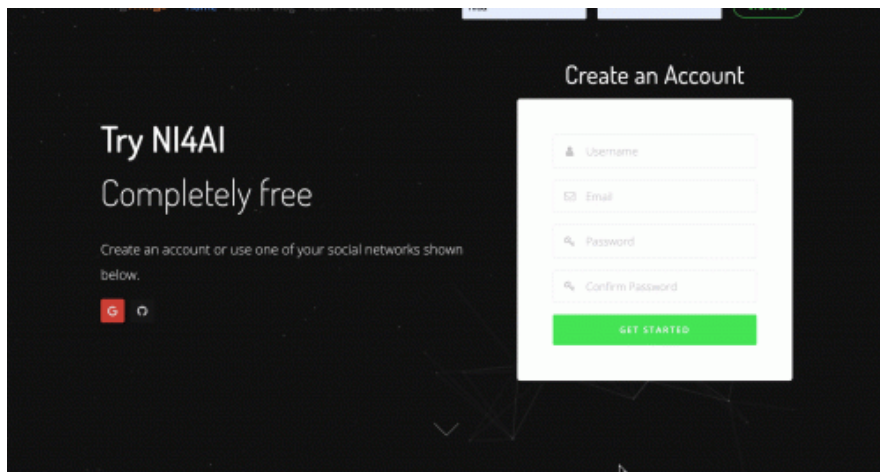


*In addition, after running out of time to train a model on several occasions, I learned to take time into consideration when training a model—to start with smaller datasets and get an idea of the time it takes to compute different datasets before training the larger, full dataset with the algorithm. All these are habits that will help me in completing projects in the future.*

*Nevertheless, without my research mentors, I would never have learned so much and had so much fun. From providing me with extra resources to read up on and explaining harder concepts to me in our meetings, to always being willing to answer my questions through Slack and email, their support has truly given me one of the best learning experiences I've ever had."*

Also at the completion of her internship, Nica Campbell, a data management intern for Ping Things, has helped to complete a unique, free online data platform called NI4AI, the National Infrastructure for Artificial Intelligence, "a federal government funded project to accelerate the development of analytics, machine learning & AI applications to modernize the grid. NI4AI provides OPEN DATASETS with COMMUNITY."

"Because this project's goal is to expand OPEN DATASETS with COMMUNITY, we need to spell out the benefits for each potential user persona. Just like people were skeptical to use sites like Craigslist and even Google when they were first introduced, people are cautious when things are free with many benefits; too good to be true and all that. As a part of user guides, I have been working on creating demos to get people started with the platform. I would like to introduce [the NI4AI platform](#) with my demo here; I invite you to try it out!"



You can check out both the NI4AI platform and Nica's "Sunshine" demo on her [blog post #4!](#)

In early September, just before the Cal Energy Corps Symposium, each student will be posting one last entry on their blogs, with a formal research abstract written on the work they've accomplished over the summer, and a personal reflection on the experience they've had. Check back on our blog page soon for them!

**See Cal Energy Corps Blogs**





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