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Vol XIX. July 2020

Summer's almost over, and our Cal Energy Corps interns are getting close to the end of their internships! Read on for more on their progress, updates from the BECC conference, and an update on how CITRIS is expanding their COVID-19 seed funding program across the border.

Upcoming Events

June 24th

[Abstract Submission for BECC 2020 Close](#)

In the News

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

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



BECC 2020 Going Virtual

The Behavior, Energy and Climate Change (BECC) 2020 conference will now be 100% virtual! Taking place in December, 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 September 11th, so be sure to register soon!

[Register Here](#)

Speaking of BECC...

LAST CHANCE: BECC Call for Abstracts Close on July 24th

There are only two more days to submit your research abstracts for the [Behavior Energy and Climate Convention](#) (BECC), which close this Friday. Although the convention is still scheduled for Sunday, Dec. 6 - Wednesday, Dec. 9, the event will be entirely digital.

Mitigating climate change is more urgent than ever, and major leaps in systems and behaviors are needed to address this critical issue. For more than a decade, BECC has presented behavioral research on nudging people and organizations to make these changes. Now is the time to move from nudges to leaps.

BECC invites you to present your work, and is seeking innovative research and applied

work from people and organizations working to create a sustainable future. Attend and learn more ways to encourage behavior change for energy and carbon savings, such as:

- Leveling up programs or moving them to more effective roles or platforms.
- Understanding why individuals and groups change.
- Making these transitions in fair and equitable ways.

Submit an abstract for a chance to present a poster, individual display, or group panel at the convention. If your work creates efficiency using behavioral principles or research, we encourage you to submit a presentation abstract instead. Your participation in BECC 2020 helps build an informed and empowered community at the nexus of energy, behavior, and climate - submit by July 24th!

Submit an individual abstract

Submit a panel abstract



CITRIS Partners with Tec De Monterrey on COVID-19 Seed Funding

This past March, CITRIS was able to successfully fund 31 research projects aimed at developing new technologies to help combat COVID-19. Now, they have expanded this effort internationally through a standing partnership with Tec de Monterrey, one of the largest universities in Latin America and a frequent collaborator with CIEE.

The annual CITRIS/Tec de Monterrey seed funding program has pivoted this year to focus entirely on COVID-19 relief efforts, inviting Tec de Monterrey principal investigators to partner with various UCs on project proposals for funding. The search just recently ended on July 15th, and we can't wait to see what cutting-edge research projects will come out of this collaboration.



CITRIS Foundry Innovation Incubator Applications Still Open

CITRIS Foundry is now accepting applications for its Innovation Incubator! Apply now to take part in a program that supports new ventures, social enterprises, and tech transfer pathways that can influence and impact entire industries.

The CITRIS Foundry Innovation Incubator empowers top entrepreneurs from the University of California to build transformative companies that will have a significant impact on the world. This on-campus program is headquartered at UC Berkeley and provides community, coworking space, individual coaching, and business resources for ambitious developing innovators. The program is for groups of 2-5 founders with projects based in information technology, biological or physical sciences, or other engineering fields to gain one-on-one mentorship from top University of California and Silicon Valley experts in their fields.

Applications will be accepted until the start of fall semester 2020.

Learn more about the Innovation Incubator here: <https://citrifoundry.org/incubator/>

Apply Now

CALL FOR PROPOSALS:

CITRIS 2020 SEED FUNDING

CITRIS 2020 Seed Funding

The CITRIS 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.

Application Deadline: Thursday, September 10th, 2020 at 5:00 PM (PDT) via the application portal: https://citris.smapply.org/prog/2020_citris_seed_funding/

More information: To download the RFP, view detailed areas of interest, eligibility, requirements, and FAQs, please visit the 2020 CITRIS Seed Funding webpage: <https://citris-uc.org/core-seed-funding/>

Contact seeds@citris-uc.org with questions.

Upcoming Events

None for now- check back next month!

Monthly Spotlight



cal energy corps

Blog Post Run-Down Volume 2

Half-way through the summer, our interns are continuing to flourish under their mentors' guidance. Whether they still have much to accomplish or are starting to wrap up their experiences, all of our students have shown great progress through their blog posts on the Cal Energy Corps website as they explore and develop new tools and skills in their internships.

With the Lawrence Berkeley National Laboratory, Marie Barr-Ramsey has been working on a neural network in order to improve groundwater level predictions. Most recently, she explored ways to improve the loss function specifically:

“Adding this term to our loss function ensures that predictions that don’t conserve mass are penalized more and helps our neural network learn to follow conservation of mass.

Some of the issues I ran into while writing this loss function had to do with the way standard Keras (a deep learning framework) loss functions are set up. I wanted to add the mean squared error of the mass conservation error to the loss function, but in order to do this, I needed access to the corresponding input values. A standard Keras loss function only takes in a true prediction and your model’s prediction, but I needed some way to map the current batch of data that Keras was predicting values for to its current prediction. The data was shuffled at the beginning of the program, so there was no way to know which value was currently being predicted.”

Jessica McGinley, working on the federal policy side with Carbon180, has been crafting policy recommendations regarding Carbon Capture and Storage (CCS). Jessica elaborates on her recent experience analyzing and reviewing the House Select Committee on the Climate Crisis policy recommendation report: “We had to dive into this 500+ page report, and all read portions of it to analyze it by the end of the day. We looked for Carbon180’s recommendations and general carbon removal recommendations in particular. I was responsible for the public health, worker’s rights, and environmental justice portion. One thing that I was pleasantly surprised to find was the emphasis on addressing mental health amidst the climate crisis. There was an entire subsection in the public health portion dedicated to mental health. I was extremely happy to find this in the report.”

Nearing the end of her internship, Patricia Kusumah has been wrapping up a simulation that can calculate the minimum solar panel roof coverage as a way to evaluate pathways to zero-net-energy buildings in cities. In order to achieve this, the target outcome for the simulation is 70% of energy saving. After updating the system by combining technologies such as mini-split heat pumps and LED, she explains in her blog post: “This upgrade also allowed me to suppress the payback year more for the utility saving cost target. For instance, when I combined the ECM 96 (LED) with ECM 90 (using a portable fan for cooling), I could achieve 10% energy saving and maintained 1-3 years of payback year. However, I also encountered a new problem, which was barely achieving 60% of energy-saving (10% away from my 70% energy saving target) even after combining 8 different ECMs.”

Read more about the interns’ experiences and discoveries in their blogs on the Cal Energy Corps website!

See Cal Energy Corps Blogs



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Contact us at: connorclark@berkeley.edu

4th Floor, Sutardja Dai Hall, University of California, Berkeley, CA 94720

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California Institute for Energy & Environment · 448 Sutardja Dai Hall · University of California, Berkeley · Berkeley, CA 94720 · USA

