

Center for Advanced Innovation in Agriculture (CAIA)

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Upcoming Opportunities and Programs

- [April 24 - CCI Research Showcase: Call for Papers](#)
- [April 25 - Cybersecurity of the Power Grid Workshop](#)
- [April 28 - CCI 2023 CFP: Experiential Learning Programs](#)
- [May 2 - Exploring Research and Teaching Collaborations with SAS](#)
- [May 5 - Commonwealth Cyber Initiative SW Node 2023 Research Engagement Program](#)
- [May 18 - Virginia Small Grain Field Day - Eastern Virginia AREC](#)

Spring is in the air and new changes within CAIA are on the horizon

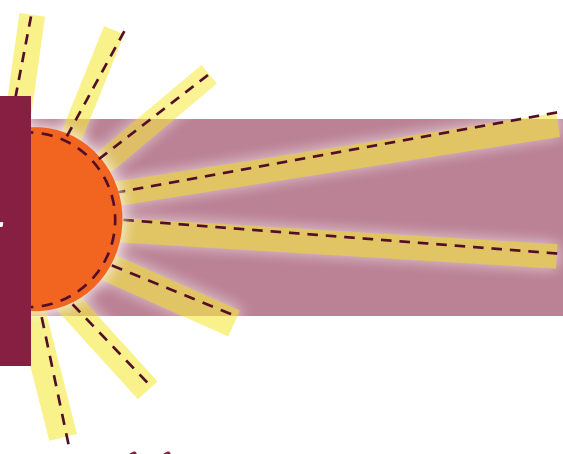
As we are well settled into the Spring semester, we are excited to share with you, in this issue of CAIA newsletter, the amazing progress CAIA has made in the past 2.5 years and some important updates looking forward. We want to express our gratitude to each and every one of you for your support and commitment to CAIA. As we move forward, I would like to encourage everyone to continue to actively participate and contribute to CAIA events. These events provide valuable opportunities for networking, collaboration, and professional development. Please provide at this [link](#) your suggestions on the topic(s) of event(s) you would like CAIA to organize.

Thank you for your contribution!

Kang Xia



CAIA reorganizes leadership structure to build a brighter future for the Center



Dear colleagues,

I am pleased that, effective immediately, Dr. Kang Xia will serve as the Director of CAIA. As you know, Kang was a founding member of a faculty group that developed the vision for formation of CAIA and served as its associate director for two years. Since her appointment as the Interim Director of CAIA last November, she has led the development of a new leadership structure that will prove to be a major inflection point in achieving the strategic goals of CAIA in an efficient and effective manner. I believe her appointment as the Director will help create a more stable and effective organization for CAIA that is better equipped to achieve its mission and goals. It will also help establish clear lines of communication within CAIA and with the external stakeholders and partners. I would like to thank Kang for her willingness to serve in this new role.

Thank you,
Saiied Mostaghimi

CAIA's newly formed Executive Committee

- Anne Brown (Library)
- Matthew Chappell (Tidewater AREC)
- Alejandro Del-Pozo (Hampton Roads AREC, Entomology)
- Zach Easton (BSE)
- Dwayne Edwards (BSE, department head liaison)
- Gonzalo Ferreira (SAS)
- Song Li (SPES)
- Brian Mayer (Sanghani Center)
- Gota Morota (SAS)
- Kim Niewolny (ALCE)
- David Schmale (SPES)
- Michael Schwarz (VA Seafood AREC)
- Dan Goerlich (VCE)
- Dong Ha (ECE)
- Haibo Huang (FST)

The CAIA Executive Committee consists of on-campus and AREC faculty from 11 units/centers to provide high-level support and diverse perspectives to the CAIA leadership (Director and Associate Director). The Executive Committee meets 2-3 times/year and is responsible for making and contributing to CAIA-related major decisions, identifying new opportunities and initiatives, and assessing annual progress and efficacy of the Center's existing operation and programs. *Our first meeting is scheduled for April 25, 2023.*

“

I'd be happy to serve. Susan Duncan was very dear to me. You can count me in for any and all opportunities that extend her legacy.”

- Cheers, David Schmale

✓ Formed External Advisory Board

- Francisco Parga (Palantir)
- Cari Culver (Heritage Glen Farm)
- Kim Huskey (Ballard Fish and Oyster Company)
- John Vicini (Bayer Life Sciences)
- Gretchen Matthews (Commonwealth Cyber Initiative)
- Melissa King (Virginia Employment Commission)
- Jay Abbott (Virginia Agribusiness Council + Red Sun Farms LLC)
- Andrew Bailey (National Pork Producers Council)
- Hilary Harp Falk (Chesapeake Bay Foundation)
- John Coggin (Mid-Atlantic Aviation Partnership)
- Chris Mullins (Virginia State University)
- Scott Lowman (Institute for Advanced Learning and Research)

We look forward to working with our newly established External Advisory Board (EAB) consisting of representatives with diverse experience. *Our first meeting is scheduled for May 30, 2023.*



- 52 CAIA affiliate faculty
- 30 graduate student affiliates
- 4 guest speakers
- 24 non CAIA affiliates
- 30 departments/organizations

Success! The CAIA Big Event brought together faculty, students, and industry affiliates to enhance CAIA's future

“

Congratulations on a great meeting and thank you for the invitation to speak to the group. I was able to make several new connections and learn much more about the Center's good work as well as its resources across Virginia. I very much look forward to our future relationship together and expanding our collaboration.”

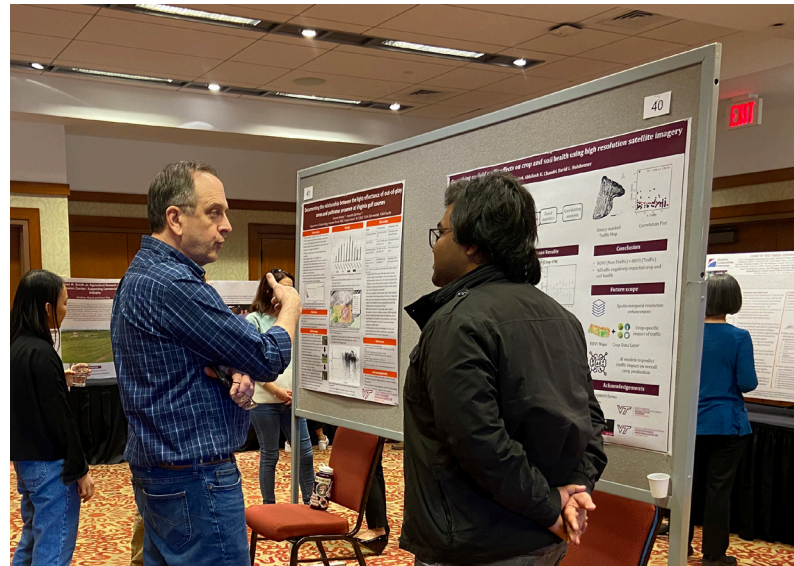
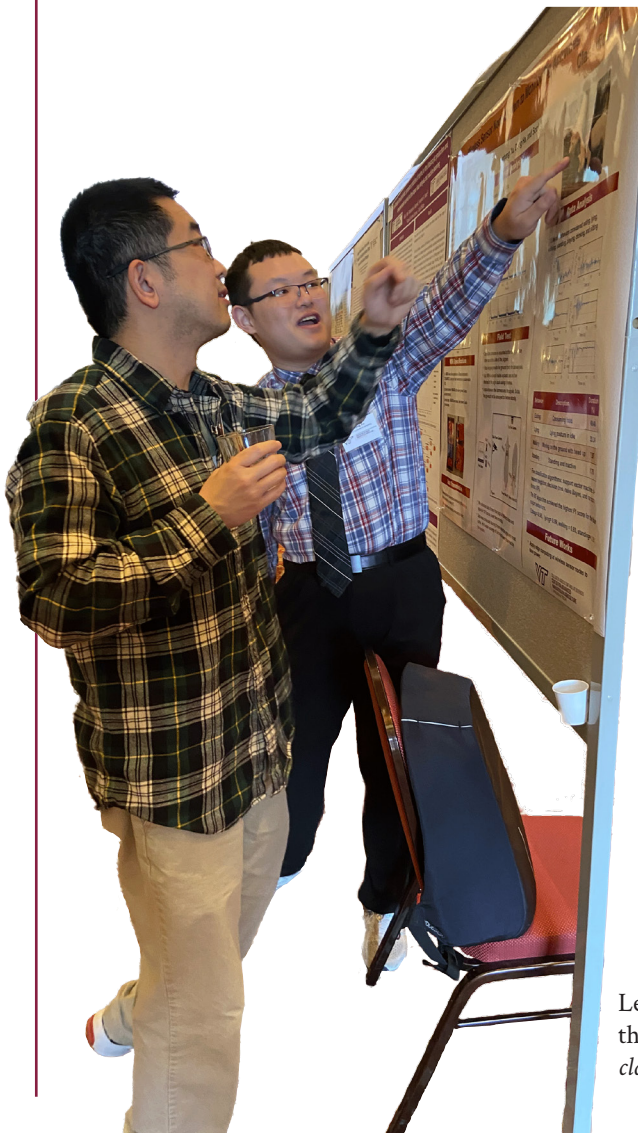
- Dr. Matt Wolfe, [Virginia Tech Applied Research Corporation](#)

This year's event focused on development of impactful engagement opportunities with stakeholders, Extension, and other industry partners. The breakout discussion groups, following the morning speaker presentations, gave faculty the opportunity to share their ideas with others on new CAIA initiatives. The main recommendations from these discussion groups are:

1. Refine & Refocus Website
2. Facilitate Collaborations
3. Enable Grant Submissions
4. Support Student Recruitment
5. Pioneer Transdisciplinary Education
6. Hire a Program Coordinator
7. Engage Industry and Community
8. Strengthen Links in Academia



[View more details about these topics here](#)



Dr. John Vicini (above left), Bayer Life Sciences, gave a presentation during the morning session on [Industry Perspectives and Partnering with Academia](#). Not only was he a guest speaker, he talked with students about their research during our afternoon poster session, including Souradeep Deb (above right), a graduate student in the department of Biological Systems Engineering at the Tidewater AREC (Advisor: Abhilash Chandel).

Left: Song Li (SPES) and Yuezhong Xu (ECE, advisor: Dong Ha) discuss the poster on a *Wireless sensor node system to monitor pig activities for behavior classification*



To view all the posters from this year's event, [click here.](#)

CAIA Big Event Inaugural Graduate Student Poster Competition

One of the highlights of the CAIA Big Event is the afternoon poster session. This year was the first annual Graduate Student Poster Competition. Five students were awarded travel funds for attending trips to the field or to a professional meeting. This year's winners were:

1. Amelia Loeb (SPES, advisor: Nicholas Santantonio)
Poster Title: *Predicting Malt Quality with Drone Imagery in Barley (*Hordeum vulgare* L.)*
2. Jitendor Rathore (BSE, advisory: Abhilash Chandel)
Poster Title: *Small unmanned aerial system-based spectral imaging for evaluating peanut maturity in field conditions*
3. Shreya Mitra and Mehul Bhanushali (ALCE, advisory: Brianna Posadas)
Poster Title: *Farmers' User Experience Related to Digital Advancements in Agriculture*
4. Ryan Wright (SAS, advisor: Robin White)
Poster Title: *Evaluation of Robot Capabilities for Rumen Exploration*
5. Claire Murphy (FST, advisor: Laura Strawn)
Poster Title: *Traceability in Hydroponic Lettuce: A Model Activity for Empowering Agricultural Educators and Supporting Middle School Girls*



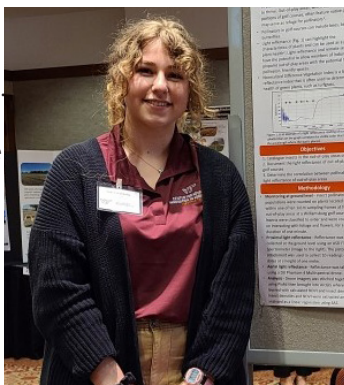
Left to right: Jitendor Rathore (BSE), Ryan Wright (SAS), Camryn Cook (FST, advisor: Laura Strawn) standing in for Claire Murphy (FST), Shreya Mitra (ALCE), Mehul Bhanushali (ALCE), and Michelle Lee (EVAREC) standing in for Amelia Loeb (SPES).

Congratulations to our poster competition winners!

New leadership in our CAIA Graduate Student Affiliate group



I'm excited to help the CAIA GSA continue to grow both membership and connections. Student members have previously had great initiative in staying connected and the current student leadership team is already taking steps to help students exchange ideas at a larger level. The previous leadership team did an amazing job setting the foundation for the GSA, and I look forward to continuing on that path." - Shannon Bradley, CAIA GSA President



President

Shannon Bradley (HRAREC/ENT, advisor: Alejandro Del-Pozo)

Treasurer

Virell To (FST, advisor: Jacob Lahne)

Student Outreach

Shikhar Poudel (TPSC, advisor: Brianna Posadas)

Event Coordinator

Sabrina Amorim (SAS, advisor: Gota Morota)



Sitting at the table: Garland Mason and Nicole Nunoo from ALCE, in collaboration with Kim Niewolny, presented information on the [Center for Food Systems and Community Transformation](#) and the [AgrAbility Program](#).

48 posters presented

33 graduate competition posters

7 AREC overview posters

7 general posters

2 VCE posters



Our Center is possible because of YOU, our CAIA Affiliate Faculty

“

Cyberbiosecurity encompasses all the decision-making from the farm all the way to the food on your table,” said **Kang Xia**, the Director of the Center for Advanced Innovation in Agriculture in the College of Agriculture and Life Sciences at Virginia Tech. “When you automate farming processes, what vulnerabilities are created, and how can you mitigate the impact?”



Read the full [VT news article](#)

“

The controlled environment agriculture industry is growing rapidly in Virginia because it enables year-round planting in indoor spaces and uses fewer resources. Crops, such as this snacking pepper plant, are grown vertically, rather than in traditional, horizontal rows, which means more crops can be grown in fewer acres, increasing a farm’s sustainability.



Bingyu Zhao, a professor in the School of Plant and Environmental Sciences, and **Yun Yin**, an assistant professor in the Department of Food Science and Technology, are the masterminds.”



Read the full [VT news article](#)



Gonzalo Ferreira, an associate professor of dairy management, speaks to a group of Virginia Military Institute cadets at the Dairy Science Complex at Virginia Tech’s Kentland Farm. Photo by Kelly Izlar for Virginia Tech.



“

With funding from two grants by the United States Department of Agriculture estimated at a total of more than \$360,000, **Srdjan Acimovic**, an assistant professor in the College of Agriculture and Life Sciences’ School of Plant and Environmental Sciences, is developing new effective treatments for fire blight — more specifically, fire blight bacterium *Erwinia amylovora* in fire blight cankers. Cankers are infected dead zones on wood bark and often cause up to 50 percent of losses of orchard acreage.”



Read the full [VT news article](#)



CAIA needs your help!

CAIA Affiliate Faculty Progress Report, have you submitted yours?

Congratulations to Drs. James Chen, Yuan Zeng, and Jingqiu Liao for being the first three faculty who submitted CAIA progress reports! As promised, they each will receive \$500 to support their graduate students' travel to a conference.

For those who have submitted your reports, thank you!

After the submission deadline, we are going to randomly select 5 faculty to receive \$400 in graduate student travel support!

Be sure to submit your reports by following these guidelines.



“

CAIA's continued funding and support from the upper administration largely depends on the productivity and progress of CAIA affiliate faculty.”

-Kang Xia, Director of CAIA

For those who have not had a chance to submit your progress reports, this is a gentle reminder about the submission deadline: **COB of Friday, April 21, 2023**. To submit your reports, you can copy the CAIA-relevant contents or any products that directly benefited from CAIA support (CAIA activities, events, seed grants, etc.) from your 2021 and 2022 EFARS annual report and paste into the form found here:

<https://caia.submittable.com/submit>

Is your student a CAIA Graduate Student Affiliate (GSA)?

We encourage you to ask your graduate students if they are a member of our [Graduate Student Affiliate group](#). The CAIA GSA provides a common space for graduate students to learn, brainstorm, and grow as students and professionals in their own research areas.

Opportunities for our GSA members include:

- Collaboration with other graduate students and faculty across disciplines
- Experiential learning grants
- Travel support to attend/present at conferences
- Opportunities to share your research with CAIA affiliate members and external audiences

Share this [link](#) with your students to help our CAIA GSA grow!