

VISHRUDH SRIRAMPRASAD

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Objective: Develop and use interdisciplinary expertise to rapidly scale carbon removal technology with energy justice principles

EDUCATION

PhD Candidate, Sustainable Engineering, May 2026

Arizona State University

Advisors: Dr. Klaus Lackner, Dr. Clark Miller

Relevant Coursework: Analysis of Large-Scale Socio-technological Systems, Responsible Research & Innovation

Master of Science, Sustainable Engineering, May 2023

Arizona State University

Advisor: Dr. Klaus Lackner

GPA: 3.62/4.0

Relevant coursework: Carbon Capture; Carbon Storage; Next-Generation Sustainability Governance; Industrial Ecology; Life Cycle Assessment; Climate Change, Society and Sustainability

Bachelor of Science, Mechanical Engineering, May 2021

The University of Texas at Austin

Relevant coursework: Thermodynamics, Mechanics of Solids, Heat Transfer, Materials Engineering, Fluid Dynamics, Applied Statistics, Nanotechnology for Sustainable Engineering, Energy Technology & Policy

PUBLICATIONS

- Sriramprasad, Vishrudh. "Exploring Industry and Non-Profit Perspectives on Community Engagement and Energy Justice for Direct Air Capture (DAC) Carbon Removal Technologies." Arizona State University ProQuest Dissertations Publishing, (2023). 30485341.
- Lackner K., Arcusa S., Azarabadi H., Sriramprasad V., Page, R. (2023) "Decoupling Life Cycle Assessment from carbon accounting and the certification of carbon sequestration." *Energy & Environmental Science*
- Arcusa S., Lackner K., Page R., Sriramprasad V., Hagood, E. (2022). "Carbon removal accounting methodologies: how to rethink the system for negative carbon emissions." CNCE Working Paper No. 0001 November 2022. Arizona State University KEEP Repository, <https://hdl.handle.net/2286/R.2.N.170043>.
- Arcusa, S.H., Lackner, K., Page, R., Sriramprasad, V., Brandt, W., Moore, J., Green, M., and Patil, S., (2022). "The socio-economic and technical context for Direct Air Capture in decarbonization pathways. Technical Workshop Report." January 2022. Center for Negative Carbon Emissions Collection, Arizona State University KEEP Repository, <https://hdl.handle.net/2286/R.2.N.170566>.
- Sriramprasad, Vishrudh. "Public and Private Partnerships Bring Direct Air Capture Solutions to Market." *I-WEST News*, 9 May. 2022, <https://iwest.org/public-and-private-partnerships-bring-direct-air-capture-solutions-to-market/>
- C. R. Idelson, J. M. Uecker, J. A. Garcia, S. Kohli, G. Handing, V. Sriramprasad, K. Young, C. G. Rylander. "Design and Performance Testing of a Noel In-Vivo Laparoscope Lens Cleaning Device" *ASME Journal of Medical Devices* (2021).
- A. J. Mawer, M. Benson, D. Daniels, A. R. N. Sakib, V. Sriramprasad. "Miniaturized Stacked Die QFN for Tire Pressure Monitoring System Applications" *Journal of Surface Mount Technology* (2021).

RESEARCH & DESIGN EXPERIENCE

Graduate Research Aide – Center for Negative Carbon Emissions

August 2021 – Present

Thesis Research: Scaling of Direct Air Capture (DAC) Technologies using Energy Justice Principles

- Conducted open-ended semi-structured interviews with over 30 representatives of DAC companies, state and city officials, and environmental justice advocates
- Completed IRB Training and Protocol to conduct Human Subjects Research
- Designed interview questions to determine key attributes of the DAC scaling process, operation, and effects

Carbon Credit Certification Framework

- Key member of ASU's effort to create a framework for the certification of carbon sequestration
- Lead author on paper describing fit-for-purpose criteria for carbon removal and sequestration methods (in prep)
- Contributing author on five additional papers in progress, describing other essential elements of ASU's framework for the certification of carbon sequestration

- Designed a workshop presentation and discussion session to educate participants on the current status and future path of the carbon sequestration standards industry for a conference in Nairobi, sponsored by the Kenyan government

I-WEST Project

- Member of ASU's Intermountain West Energy Sustainability & Transitions (I-WEST) Team focused on analyzing the impact of direct air capture on the energy transition in the Intermountain west region, and educating & surveying the Arizona stakeholders on the energy transition
- Key member of the planning team of the four-and-a-half hour I-WEST Direct Air Capture Technical Workshop which had 125+ attendees from 40+ separate organizations and 20 panelists/ presenters from across the USA
- Primary author of blogpost on the I-WEST website about Carbon Collect™'s MechanicalTree™ Design
- Primary author of 10-page report summarizing key takeaways on the I-WEST DAC Technical Workshop

DAC Hub Project Proposal Team

- Member of the Community Engagement team for the Southwest Regional DAC Hub (awarded ~\$23 million)
- Member of proposal team to co-design and scale DAC devices with communities in Arizona, New Mexico, Utah
- Conducted in-person engagement activity in visit to Arizona community to engage with local government officials

Carbon-SAFE Project

- Member of project team planning to scale MechanicalTree direct air capture devices in city in Northeast Arizona
- Communicated technical direct air capture concepts to non-technical members of the team in order to design a community engagement plan

LEADERSHIP EXPERIENCE

Founder and President – *Negative Emissions Technology Project*

December 2019 – May 2021

- Strategized with members and experts from UC Berkeley and Noya Labs to design a small-scale modular Direct Air Capture solution with a viable target market
- Led and presented at 100+ general meetings, journal reviews, recruitment meetings and meetings with professors and NGOs
- Created an organizational structure for NETP with 70+ team members which included eight officer positions, biweekly open general meetings with industry speakers, and three sub-projects with separate project leads to ensure consistency, longevity and accountability
- Consulted with the City of Austin to research and write policy briefs to increase government support and knowledge of carbon removal friendly policies
- Collaborated with staff experts from the Energy Futures Initiative to create and improve a model for determining optimal carbon removal pathways by region using variables including climate, location, and geographic terrain

Co-Founder – *Carbon Visions Community*

November 2020 – Present

- Created a community of 60+ college students from across the US interested in carbon removal to interact and learn about carbon removal with peers
- Organized weekly and biweekly events for members to learn about carbon removal in a group setting through journal reviews and discussions with experts
- Facilitated group meetings with 10+ members to discuss and work on initiatives to increase awareness and engagement in the field of carbon removal

SKILLS

- **Software:** SOLIDWORKS, ANSYS Workbench, MATLAB, MasterCam, Python, Arduino, Java, MS Office: Word, Excel, PPT
- **Design & Manufacturing:** Manual and CNC Machinist, Mechanical Design, Ideation, Design for Manufacturing and Assembly
- **Research Skills:** Community Engagement/Event Organizing, Technical Writing, Human Subjects Research Experience