

EDUCATION

University of Kentucky

MA in Applied Environmental & Sustainability Studies	GPA: 4.0	Graduation: December 2021
BS in Chemical Engineering	GPA: 3.10	Graduation: May 2020

FIELD EXPERIENCE

Project Director/Webmaster – March 2020 to Current

Engineers for Sustainable Energy Solutions, Paducah, KY

- Responsible for the research and development of new technology that can convert plastic waste to fuel oil.
- Responsible for the establishment and continuation of projects and partnerships in Senegal, Uganda, and India. Coordinate technology dispersal and implementation in overseas regions and communities.
- Raise funds through formal grant writing as well as community outreach events.
- Build, design, and maintain the organization's website.

Engineering Research Assistant– August 2013 to May 2020

University of Kentucky Appropriate Technology and Sustainability (UKATS)

- Lead undergraduate researcher; team project leader; member for eight years.
- Partnered with Makerere University, Rotary International, Beyond Uganda and other organizations to produce diesel-like fuel oils from waste plastic while establishing sustainable circular economies in Uganda.

Engineering Research Intern – August 2017 to July 2018

EcoFuels Kenya, Nanyuki, Kenya

- Conducted lab-based research throughout the academic school year for EcoFuels Kenya on wood vinegar products extracted from local organic waste material, such as croton husks. Lived in Kenya summer of 2018 working on-site gathering temperature gradient data and testing vinegar compositions.

COLLEGIATE EXPERIENCE

American Institute of Chemical Engineers (AIChE) – August 2016 to May 2020

- Vice President, 2018-2019 academic school year. Responsible for attending school-wide meetings and setting up outreach events such as industry tours and traveling to local high schools to talk about majoring in engineering.
- Conference Chair, 2019-2020 academic school year. Responsible for organizing housing and transportation for 30+ students as well as food, itineraries, and projects. Organized the registration and multiple different competitions that take place at both national and regional conferences.

Engineers for a Sustainable World (ESW) – August 2016 to May 2020

- President, 2018-2019 academic school year. Responsible for organizing and leading meetings to discuss events such as Engineering Day and United Way, as well as organizing trips abroad to Uganda.

CERTIFICATES, SOFTWARES, EXTRAS

- Certificate in Environmental Engineering (*University of Kentucky*)
- Certified Engineer-in-Training (*Kentucky State Board of Licensure for Professional Engineers and Land Surveyors*)
- Proficient in Microsoft Office
- Congress-Bundestag Youth Exchange for Young Professionals – Program Fellow (September 2020-July 2021)
 - Selected as one of 75 U.S. participants to complete U.S. Congress – Germany fellowship in Germany. Attended sessions through the U.S. Department of State related to diplomacy, policy, and current global issues.
 - Received program certifications:
 - Global Competence Certificate (*AFS*)
 - Leadership Certificate (*Preparing Global Leaders Forum*)
 - German A1/A2 Certification (*Goethe Institute*)

PUBLICATIONS

1. **Browning, S.**, B. Beymer-Farris and J. Seay (2021): “Addressing the Challenges Associated with Plastic Waste Disposal and Management in Developing Countries”, *Current Opinion in Chemical Engineering*, Vol. 32, **DOI:** 10.1016/j.coche.2021.100682
2. Joshi C., **S. Browning** and J. Seay (2020): “Combating plastic waste via Trash to Tank”. *Nature Reviews Earth and Environment*, Vol. 1, page 142. **DOI:** 10.1038/s43017-020-0032-3.
3. **Browning S.**, T. Lawrence, C. Joshi and J. Seay (2020): “Analysis of Green Pesticide Production by Valorization of Husks from *Croton megalocarpus* Tree Nuts”, *Environmental Progress and Sustainable Energy*, Vol 39, No. 4. **DOI:** 10.1002/ep.13312,

TECHNICAL PRESENTATIONS

1. S. Browning and J. Seay (2020): “A Study of the Physical Properties of Plastic Derived Fuel Oil Produced from Waste Plastic”, *Global Symposium on Waste Plastic*, Virtual.
2. S. Browning and J. Seay (2019): “A Study of the Physical Properties of Plastic Derived Fuel Oil Produced from Waste Plastic”, *Engineering Sustainable Development*, Seoul, South Korea.
3. S. Browning, C. Joshi, and J. Seay (2019): “Building Momentum for Sustainable Behaviors in Developing Regions Using Locally Managed Decentralized Circular Economy Principles”, *AIChE Annual Conference*, Orlando, Florida.
4. S. Browning and J. Seay (2018): “A Sustainable Approach for Green Pesticide Production in Kenya from the *Croton Megalocarpus* Trees”, *7th International Congress on Sustainability Science and Engineering*, Cincinnati, OH.
5. S. Browning and J. Seay (2017): “A Sustainable Approach for Green Pesticide Production in Kenya from *Croton Megalocarpus* Trees”, *AIChE Annual Student Conference*, Minneapolis, Minnesota.
6. S. Browning, C. Joshi, and J. Seay (2017): “A Novel Waste to Energy Project Using a Rocket Stove Powered Retort”, *Household Energy and Renewable Technology for Humanity (HEARTH) Conference*, Cottage Grove, Oregon.

HONORS AND AWARDS

- 1st Place in the 2019 AIChE Undergraduate Student Poster Competition Environmental IV Division
- 2nd Place in the 2018 ICOSSE Student Poster Award
- 3rd Place in the 2018 ICOSSE People’s Choice Rapid Fire Award
- 3rd Place in the 2017 AIChE Undergraduate Student Poster Competition Environmental 1 Division
- University of Kentucky 2019 Undergraduate Research Abroad Scholarship Recipient
- University of Kentucky 2018 Summer Research and Creativity Fellowship Recipient
- University of Kentucky 2018 Summer Sustainability Research Fellowship Recipient
- University of Kentucky 2018 & 2017 Bucks for Brains Scholarship Recipient