ESES Quarterly Newsletter

Engineered Waste to Energy Solutions for the World

Announcements

- Our ESES Earth Day fundraiser event at Swirls Frozen Yogurt in Paducah, KY raised $341!
- Our T-shirt fundraiser led by Undergraduate Research Fellow Emilye Garner brought in $2,900 in sponsorship money. Local Sponsors include Four Rivers Nuclear Partnership, Evonik Industries, Apex Engineering, Kimmel Law Firm, Midcontinent Conversion Services, 3A Composites and Control Specialists.
- Two ESES 3T processors have been shipped to date, one to the African Institute for Capacity Development in Uganda, and one to the Dakar American University of Science and Technology in Senegal.

Inside This Issue

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- Read the latest ESES news and events.
- Meet our team of ESES Research Fellows.
- Get the latest updates on our projects and partnerships, including our upcoming in-country project in Uganda.

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- Learn more about work being done in Uganda by our partner organization, Upcycle Africa.
- Learn about all the ways you can support our non-profit mission.
- Learn how to connect with ESES through the web or our social media pages.

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- Check out a few photos of ESES projects and volunteers in action!

ESES News and Events

- Recent MOUs and Partnerships:
  Bridge Foundation in Jammu and Kashmir, India.
  Society for Sustainable Development in Rajasthan, India.
  National Institute for Technology – Srinagar, Jammu & Kashmir, India
- ESES Project Director Shelby Browning will lead a team of volunteers to Mpigi, Uganda in July to implement a project in collaboration with Upcycle Africa. This will be the first overseas training and implementation project conducted by ESES.

Meet our Research Fellows

Sohail Lone, PhD

International Research Fellow Sohail Lone received his PhD in Chemical Engineering from IIT-Roorkee. He is researching plastic waste supply chains in his home state of Jammu and Kashmir, India.

Eniyew Abebaw

International Research Fellow Eniyew Abebaw is a PhD student in Chemical Engineering at Addis Ababa University in Ethiopia. He is researching the leakage rate of plastic waste into the environment in Ethiopia.

Ronald Kizza

International Research Fellow Ronald Kizza received his MS in Agricultural and Biosystems Engineering from Makerere University in Uganda. He is researching the energy utilization of the 3T process.

Emilye Garner

Undergraduate Research Scholar Emilye Garner is a Junior Chemical Engineering student at the University of Kentucky. She is researching the societal impact of the 3T process in developing regions.

Projects Overview

Upcycle Africa

An ESES Team will deliver a 3T processor to Upcycle Africa in Mpigi, Uganda in July. This will kick off a year-long project to build a plastic waste recycle and training center.

AICAD

ESES International Research Fellow Ronald Kizza will work with ESES volunteers in Uganda and begin studies with a 3T processor that arrived in February at AICAD in Uganda.

DAUST

The first 3T Processor to be shipped internationally has been received. ESES personnel have conducted online training with students and faculty at DAUST.

Bridge Foundation

ESES has raised $367 from crowd funding efforts to send a 3T processor to Bridge Foundation in India. This project is led by International Research Fellow, Dr. Sohail Lone.

Plastic Waste Fast Facts

- Scientists have recently recovered microplastics in human placentas.
- The Ellen MacArthur Foundation estimates that by 2050 the mass of plastic in the world's oceans will outweigh the mass of fish.
- In 2015 alone, the world produced enough plastic to fill every skyscraper in NYC!
- Since 1955, the world has produced enough plastic to fill every NYC skyscraper 20 times!
- Annual production of plastic has increased 200-fold since 1950.
- Approx. half of plastics produced annually are for single-use items.
- Cumulative production in 2015 was around 8.3 billion U.S. metric tons.
- Most plastics do not biodegrade. Instead, they slowly break down into smaller fragments known as microplastics.
- Microplastics are generally considered particles smaller than 5 millimeters in diameter.

Partner Spotlight

Upcycle Africa

Upcycle Africa is a social enterprise that focuses on environmental restoration and protection, and improvement in the lives of marginalized groups of people through waste education and Zero-Waste campaigns in communities to change people's mindset on the way they think and dispose of plastic waste. Upcycle Africa works to train communities as to how they can transform plastic waste into products of value by constructing homes out of plastic found as waste while promoting capacity building and entrepreneurship in green businesses.

Upcycle Africa is focused on transforming the waste crisis in Africa into employment opportunities for marginalized groups of people especially the women and youths, while training them with the skills of turning plastic waste into products of inherent value such as building materials and other accessories and garments. Learn more about Upcycle Africa online at www.upcycleafrica.org.

UPCYCLE AFRICA

Directors and Officers

Board of Directors:
Dr. Jeffrey Seay, President
Chandni Joshi, Vice-President
Sarah Cranor, Secretary/Treasurer
Dr. Betsy Beymer-Farris
Dr. Bill Murphy
Dr. Quinta Warren
Ken Wheeler

Projects Director:
Shelby Browning

Social Media Director:
Position Vacant

Art Director:
William Seay

How You Can Help

Amazon Smile

If you make purchases from Amazon, purchase instead from www.smile.amazon.com. Make your purchase as normal, then select Engineers for Sustainable Energy Solutions as your preferred charity. Amazon makes a donation to ESES for every purchase you make! Works with Amazon Prime as well.

Redbubble Store

Purchase original art from ESES Art Director, William Seay, on stickers, mugs, shirts and water bottles from our online Redbubble Store. All proceeds benefit ESES. A link is on our website!

PayPal Donation

Make a tax-deductible PayPal donation using the Donate button on our website or using the URL here: https://eses-plastic.org/donate/
ESES is a 501(c)3 non-profit. All donations are tax deductible to the maximum extent allowed under the law.

Volunteer

E-mail us or use the contact form on our website to find out how you can help.

Connect with us!

We'd love to hear from you! Follow us on Social Media or check out our website for news and updates!

www.eses-plastic.org

www.facebook.com/eses-plastic

www.instagram.com/eses-plastic

esesplastic@gmail.com

ESES Photo Gallery

ESES Trash to Tank Processor on its way to Senegal

ESES receives a donation from Mid America Conversion Services

AICAD Team in Uganda with their new ESES Trash-to-Tank Processor

ESES Trash to Tank Processor ready to ship.

ESES Trash to Tank Processor on in use in Senegal.