



ESW
BIOFUELS

Newsletter
Spring 2018



Engineers for a Sustainable World



Develop Promote Innovate Cooperate

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ESW Biofuels

New Members & ESW National Conference

ESW Biofuels recruited 2 members this semester. Henry Harwood is a freshman Engineering Physics major from Larchmont, NY joining the Research & Development subteam. Medhavi Gandhi is a sophomore Operations Research major who currently lives in Dubai in the UAE, and is joining the Bioenergy Implementation subteam.



Several members of the Biofuels team also represented ESW Cornell Chapter at the annual ESW National Conference, which was hosted by Georgia Tech. We were awarded Outstanding Chapter, and won the Best Project Photo competition!



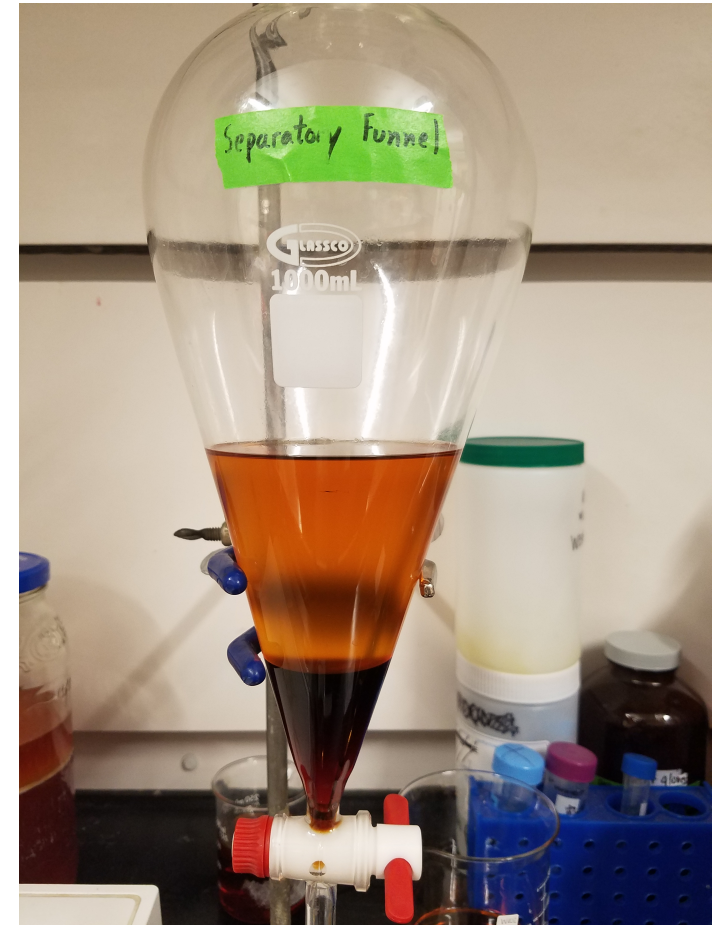


Research & Development

Biodiesel Production

In fall, R&D began to synthesize their first batches of biodiesel from waste vegetable oil and developed a set of quality standards for their fuel. They are collaborating with ECO and Greeks Go Green in order to diversify their sources of waste vegetable oil and test with varying qualities of oil.

The team is also finalizing designs of a small reactor that will allow them to create a steady supply of biodiesel to be used to produce fuel for on-campus mowers.





Bioenergy Implementation

High School Competition

The Bioenergy Implementation subteam are creating a Fall 2018 case study competition for high school students. The goal of the competition is to get students engaged with sustainability topics and challenge them to solve engineering problems.

Biodiesel Engine Project

The Bioenergy Implementation subteam is also working on a biodiesel engine project in collaboration with individuals at Cornell and a startup company called Optimus Technologies. The goal of this project is to implement the company's biodiesel engine technology on campus. Bioenergy Implementation is currently working on vehicle and fueling logistics with the company.





Business & Outreach

Educational Outreach & Local Collaboration

The Business & Outreach subteam has scheduled to present interactive sustainability-related exhibits to the elementary-level children at Caroline Elementary in March and the Sciencenter in April.

A promotional partnership has also been established with the Ithaca Area Wastewater Treatment Facility. B&O will spread word about two of their current projects; cogeneration of heat and power by anaerobic digestion of organic wastes, and the removal of naturally occurring thermal energy from the facility for local heating. In addition, the Ithaca Recycling Center has agreed to collaborate on an upcoming project, and the Business & Outreach Subteam is searching for a partner to help promote composting at Cornell and in Collegetown.

