2021 NYWEA Annual Conference, February 9, 2021

Three students received awards at the recent NYWEA Annual Conference. All three were mentored by Dr. John Fillos of the Department of Civil Engineering at The City College of New York.

**Shirin Estahbanati** was given The Kenneth Memorial Award for the best technical paper from the 2020 conference, for her paper entitled "Comparing the Impact of Thermal Hydrolysis on Biogas Generation Rates in Bench Scale Mesophilic Digesters". This award is given annually and candidates include both professional and other student presenters (excluding those presenting in the University forum).

Shirin recently earned her PhD in Civil Engineering at The City College of New York.

While pursuing her PhD, Shirin worked on several projects in collaboration with the New York City Department of Environmental Protection (NYCDEP) and worked on the topic of energy integration in New York City water resource recovery facilities (WRRFs) by applying thermal hydrolysis technology. Prior to her doctoral work, Shirin earned bachelor's and master's degrees in chemical engineering and a master's degree in environmental engineering at Rutgers University. As a graduate student at Rutgers University, she worked on microplastic contamination in surface waters. Throughout Dr. Estahbanati's academic pursuits, she has demonstrated powerful research and data analysis abilities while advancing teamwork and teaching, all while maintaining academic credentials. Shirin hopes that her research contributes to addressing urgent environmental issues today and in the future.

**David Cham** won the second prize of all student presenters in the University Forum at the 2021 conference for his paper entitled "Struvite control at Water Resource Recovery facilities with magnesium hydroxide".

David is a current student in the XXX Master of Engineering program program at The City College of New York.

More on the topic: David investigated the efficacy of phosphorus removal on New York City WWRF digested sludge by intentionally precipitating struvite using magnesium hydroxide in lieu of using Ferric chloride which is a hazardous substance and currently being used at the facilities. The magnesium hydroxide serves to supplement the limited magnesium while contributing alkalinity into the dewatered centrate.

**Jason Iwensky** won the third prize of all student presenters in the University Forum at the 2021 conference for his paper entitled “An Ecological Infrastructure Approach to Wastewater Treatment”.

Jason is a current student in the Master of Science in Urban Sustainability program at The City College of New York.

More about the topic: Wastewater treatment plants are examined from a sustainability perspective, in transitioning to become Water Resource Recovery Facilities (WRRF) with community as well as resource benefits. His paper examined the next generation build-out of a plant on NYC’s Jamaica Bay with incorporation of food-waste co-digestion, renewable/resilient energy, urban farming/food processing and distribution, coastal resilience projects, and a research-testing-and-training facility.