A team of USU civil engineering students emerged as the winners at the annual Water and Environment Federation of Utah (WEAU) Student Design Competition on Friday, April 29th in St. George, Utah, but they can’t rest easy yet. The WEAU win also allows them the opportunity to represent the State of Utah in the national WEFTEC 2016 competition in New Orleans in September.

“This is a great accomplishment for the university,” said Ayman Alafifi, USU’s WEAU student chapter president, “because this is the third year in a row that a USU team has been selected to represent the State in such a prestigious national competition. The team in the past managed to get 2nd place and we are hoping this year we will make it to the first place.” Ayman, who competed on the team in the previous two years, also said, “the experience and the networking we got from these competitions are invaluable.”

This year’s team designed an innovative system for handling biosolids at the Central Davis Sewer District that will help to overcome odor issues and potential loss of land, as well as improve the operation and provide cost-effective and profit-generating options. The proposed system incorporates an innovative technology called Biochar that efficiently reduces volume and completely eliminates odor through bio processes and pyrolysis, all while maintaining a net zero energy usage.

The team is composed of Ahmad Bitar (Graduate Student, CEE), Erin Andersen (Graduate Student, CEE), Dominique Bertrand (Sophomore, CEE), Darren Bingham (Junior, NR) and Dan Horne (Junior, CEE) and is mentored by Dr. Michael McFarland. “We had a great help and support from the College of Engineering Dean, the CEE department, the (Utah) Water (Research) Lab, and the College of Natural Resources,” says Ahmed, the team leader this year. “We are also grateful for our academic advisor and for our professional mentors at Carollo, MWH, and JUB Engineers.”