



# HYA BIOPLASTICS

## 2020 Finalist Team Guide

### PRESENTER:

**Dennis Ssekimpi** [ Den-Nis | Say-Chimpi]  
Civil Engineering (U)  
Makerere University



Dennis Ssekimpi is a year four student pursuing a bachelors degree in civil and environmental engineering at Makerere University. Before joining Makerere University he participated in vocational training at Nakawa Vocational Training Institute with focus on attaining hands on skills in engineering work. He pursued Physics, Chemistry Mathematics and ICT for his Advanced Level and is an enthusiast of the field, Science and technology. At Makerere University he has been part of a student start-up Wet-Technik which is developing a product to enable households and institutions optimize water usage through greywater recycling. Under Wet-Technik he has received various awards and recognition including the Wege Prize hosted by Kendall College of Art and Design in Michigan, Big Ideas contest a prize by Blum Centre for Developing Economies. All these have been in recognition of the work in creating change and development in a sustainable way. He intends to continue building the brand Wet-Technik and use it as a platform for change and self-development. He has the desire to pursue graduate studies in highly ranked universities globally, work for global organisations in the field of water and sanitation and gain exposure on the global platform. He is a big fan of formula 1 and spends his free time following up on races and various events connected to driving.

### OTHER TEAM MEMBERS:

**Mark Musinguzi Musiimenta**  
Mechanical Engineering (U)  
Makerere University



**Paula Tusiime**  
Commerce (U)  
Makerere University



**Nandaula Joanita**  
Chemical and Biomolecular  
Engineering (U)  
Georgia Institute of Technology



**Daphine Zawedde**  
Industrial Chemistry (U)  
Makerere University



### TEAM BIO

The team is consisting of members who were participants in the Wege Prize 2019 edition. The members picked up a lot of knowledge and understanding of the circular economic design principles. They took it upon themselves to meet and interact with other students back at their university who have a keen interest in developing ideas and solutions to problems but they decided to design these solutions with circular economic experiences and it is from this background that the team Hya-Bioplastics was founded. Learning and sharing the principles of the circular economy among members who were not previously acquainted with some of these aspects was a challenge but we have successfully held on to this point of the final stage which is a key milestone. Winning this competition will be key for as we accumulate capital to build a start- up doing something unique in Uganda.

### SOLUTION SUMMARY

Hya Bioplastics is developing a process that blends dried water hyacinth fibers and boiled cassava starch into a biodegradable raw material for the production of disposable plates, cups, and silverware. At the same time, the process helps mitigate the threat that the spread of water hyacinths poses to already-scarce freshwater sources around the world.