



Centre for Bioprocess Engineering Research

University of Cape Town (UCT)

Cape Town, South Africa

www.ceber.uct.ac.za

Title:	Integrated Process Flow Sheets For Vinasse Management Technology
Abstract:	Through a combination of paper-based and modelling investigations, supported by experimental work on a needs basis, an integrated approach to treatment of vinasse with concomitant value creation will be sought. This will be achieved by the development of process flow sheets with appropriate unit operations for salt recovery, water recovery, biological conversion of the organic phase and, where possible, recovery of value in terms of energy, salt, water, fertiliser products and other products of value. The flow sheets and existing performance data will be used to develop material and energy inventories at an early design stage level. These inventories will be used for techno-economic assessment, analysis of environmental impact and benefits in terms of resource productivity.
Lead institution:	University of Cape Town
Partner institutions:	Sugar Milling Research Institute (SMRI)
Student name:	Rony Azegele
Supervisor name:	Professor Sue Harrison
Degree:	MSc Chemical Engineering
Funded by:	CeBER, Sugar Milling Research Institute (SMRI)
Start date:	March 2016
End date:	August 2017
Feedstock:	Sugarcane vinasse from ethanol distilleries
Value chain products:	Salts (Mg, Ca, K), Biogas, Water, Fertilizer
Geographic source of the feedstock:	Kwa-Zulu Natal