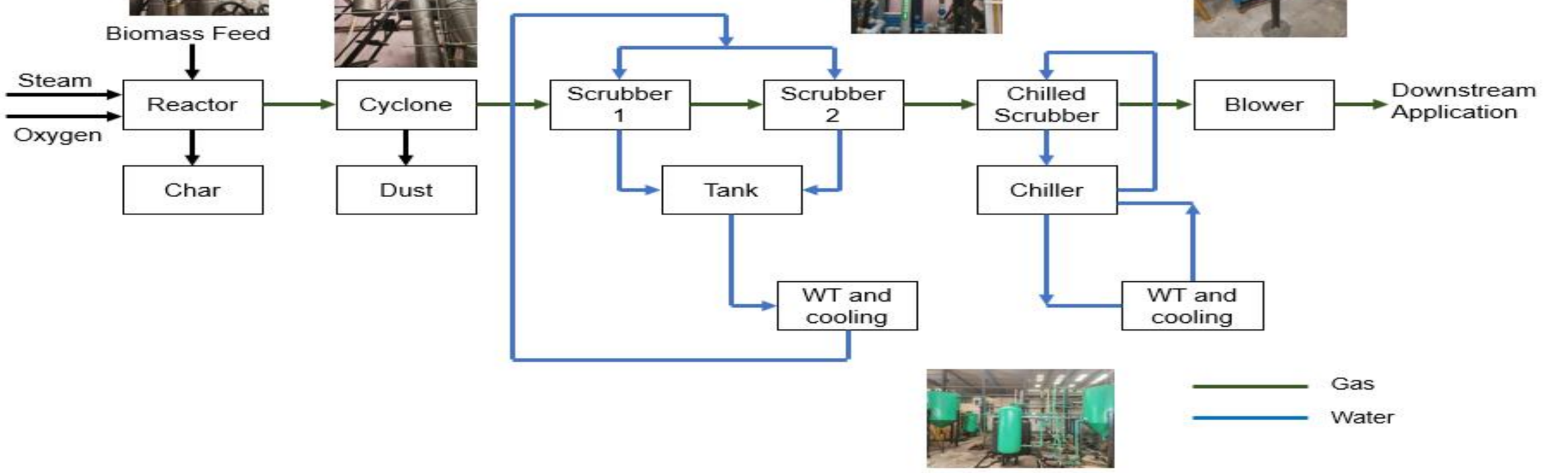
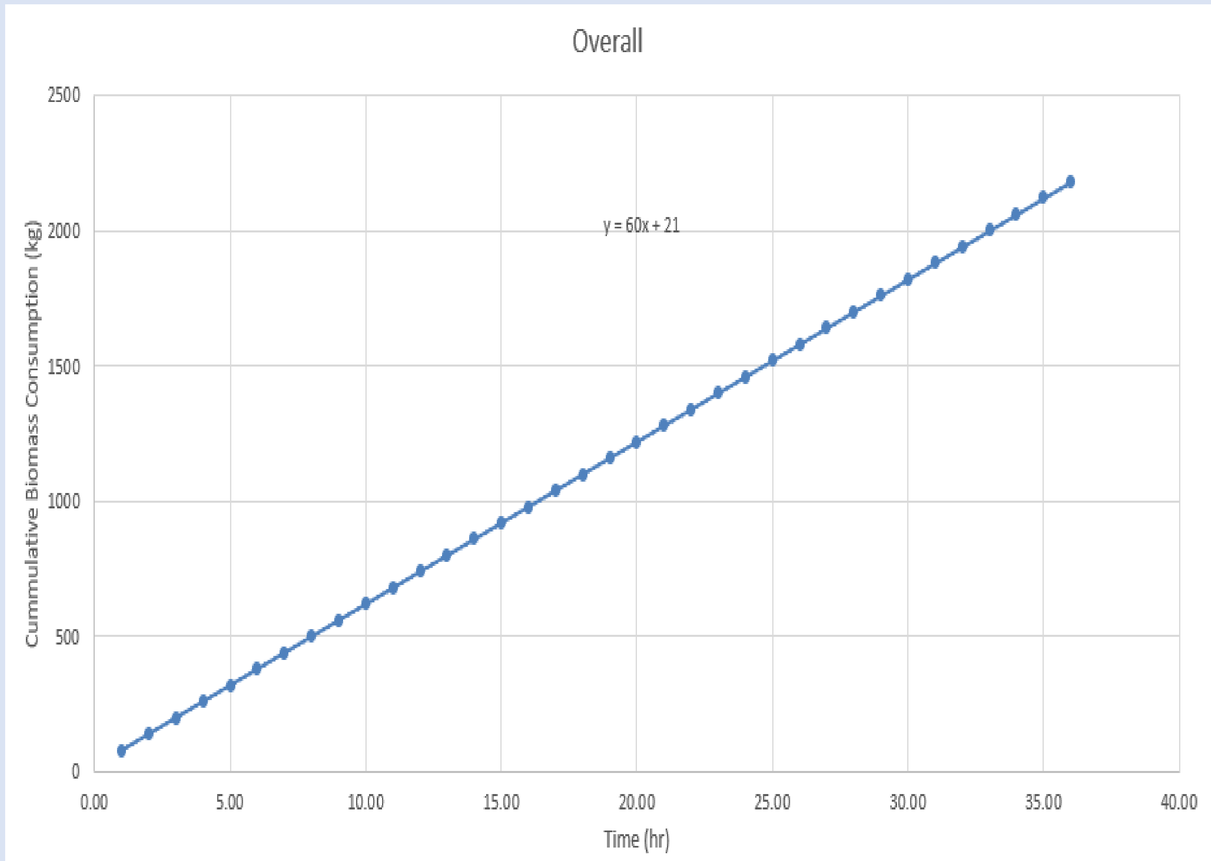
BIOMASS GASIFICATION

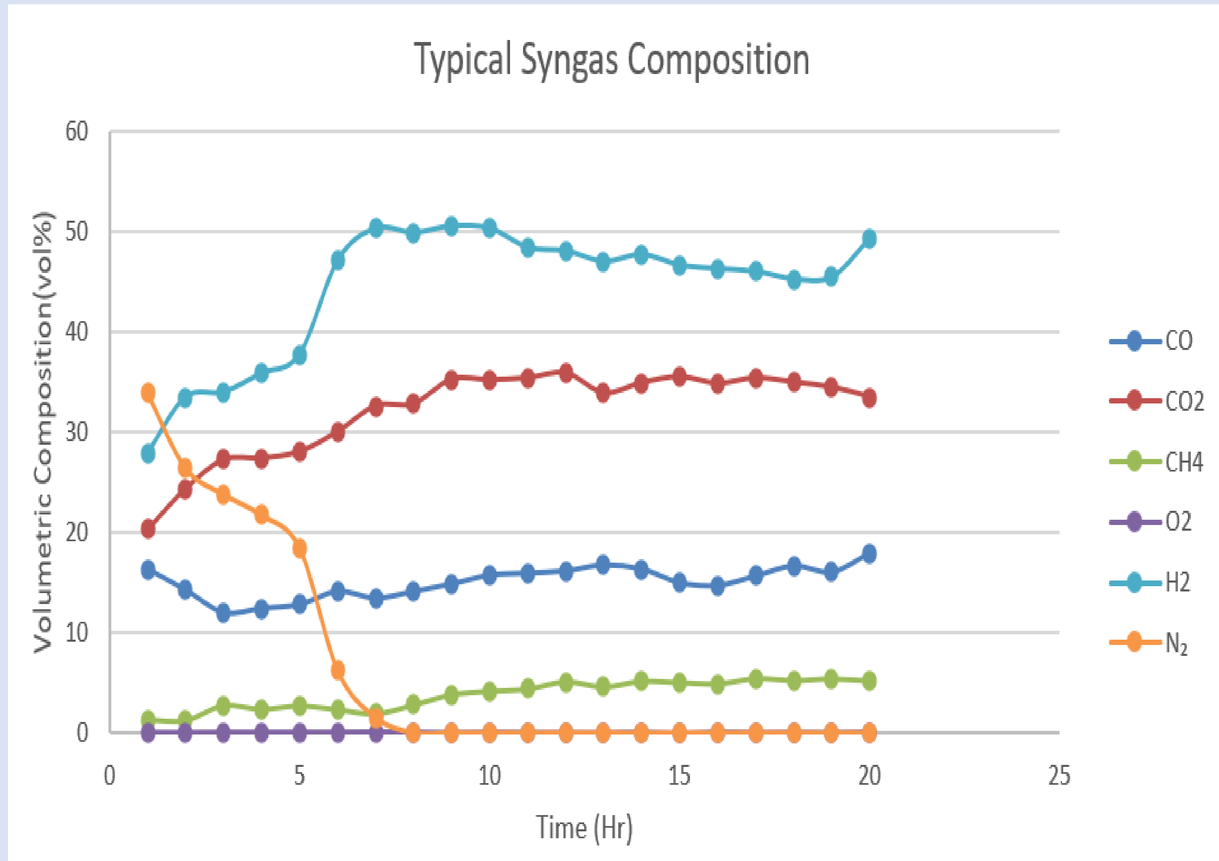
Gasification Process Flow Diagram



Modes of operation and performance(Air mode and oxy steam)

Mode of operation	Gas produced	Volumetric composition		Mass fraction composition		Gas to biomass ratio	Calorific value(MJ/Kg)	Amount of H2(g) in syngas/producer gas per kg of biomass
Air mode	Producer Gas	H_2	20%	H_2	1.63%	2.75	5	40
		CO	20%	CO	22.88%			
		CH_4	2%	CH_4	1.31%			
		CO_2	12%	CO_2	21.57%			
		N_2	46%	N_2	52.60%			
Oxy steam	Syngas	H_2	50%	H_2	4.71%	2.0	10	100
		CO	20%	CO	26.41%			
		CH_4	5%	CH_4	3.78%			
		CO_2	25%	CO_2	51.88%			
		N_2	10%	N_2	13.20%			





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