



Final Year Project Showcase for Batch-2016

Department of Food Engineering		
1	Project Idea	Wastewater process automation and simulation using GPSx
2	Process	Beverage Industry Wastewater treatment
3	Outcome	<ol style="list-style-type: none"> 1. Reduces human error. 2. Ease in controlling the process. 3. After automation, the treated water has better quality. 4. Using simulation we can predict the process variation occurs due to the variation in raw wastewater characteristics.
4	Evidences (Theoretical Basis)	<ol style="list-style-type: none"> 1. Manual Calculations. 2. Prototype. 3. Simulation (using GPSx Software).
5	Competitive Advantage or Unique Selling Proposition (Cost Reduction, Process improvement, Attainment of any SDG (Sustainable Development Goal), increase of market share or capturing new market or having superior performance over competitor. In summary, any striking aspect of the project which compels industry to invest in FYP or purchase it. Some detail description is required in terms of how, why when what. You can select one or more from following dropdown and delete rest of them)	
a	Cost reduction of existing Product	48.3 \$/day
b	Process Improvement which leads to superior product or cost reduction, efficiency improvement of whole process (e.g. What is issue is current process and what improvement you suggests)	In current scenario the wastewater plant running in Coca-cola Beverage Ltd. is on manual mode and due to which human error risk is quite high. The main focus of this project is to run the wastewater plant operations smoothly. The chemical dosage is also done in manual way. By automation the chemical dosaging can be done in more precisely manner and the quality of treated water can be monitored and control in much better way.
c	Attainment of any SDG (e.g. How it is achieved and why it is necessary for the region)	Industrial wastewater often contain high solid and liquid contamination which is adequate dangerous for aquatic life. This water need to be treated in order to limitized the contamination to the threshold limits.
d	Any Environmental Aspect (e.g. carbon reduction, energy efficient etc.)	To treat the wastewater and reduce its TDS and TSS values.
6	Target Market (Industries, Groups, Individuals, Families, Students, etc) Please provide some detail about user of the product, process or service	Beverage Industries
8	Team Members (Names & Roll No.)	Sadia Rajpur (FD - 15001), Teeba Abdul Razzaq (FD - 15024), Sidra Faheem (FD - 15026), Mahnoor Mujeeb (FD - 15033).
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