Final Year Project Showcase Batch-2017
Year 2021

Department: Food Engineering Programme: Food Engineering		
1	**Project Idea**	**Designing of Continuous High Pressure Processing Combine with Thermal Treatment for Liquid Foods.**
2	**Process**	Non-thermal Food Processing
3	**Outcome**	Extension of shelf life of liquid foods, without nutrition loss and texture change.
4	**Evidence (Theoretical Basis)**	High hydrostatic Pressure technology in dairy processing a review by: Rekha Chawla, Girdari Ramdass and Ashish Kumar. J Food Sci Technol (May–June 2011) 48(3):260–268 DOI 10.1007/s13197-010-0180-4
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 a competitor. In summary, any striking aspect of the project that compels the industry to invest in FYP or purchase it. Some detailed description is required in terms of how, why when what. You can select one or more from the following dropdown and delete the rest of them). Please keep relevant options, delete the rest of them, and correct the sequence	
a	**Process Improvement which Leads to Superior Product or Cost Reduction, Efficiency Improvement of the Whole Process** (e.g. What is the issue is current process and what improvement you suggests)	Thermal Treatment inactivates the enzyme, denatures the proteins and detroy beneficial bacterias and HPP maintain the nutritional value of the liquid food.
b	**Attainment of any SDG** (e.g. How it is achieved and why it is necessary for the region)	**SDG#3 Good Health and Well Being; SDG#13 Climate Action** Consumers demand foods which are natural, nutritionally better, free from chemical preservatives and microbiologically safe with extended shelf-life. Today, many processed foods like juice, milk and canned products are treated at high temperature to kill bacteria. Processing at high temperature lowers the nutritional quality of foods because many nutrients are heat labile. To overcome these problems, several non-thermal processing or "cold processing" techniques including high hydrostatic pressuretechnology (HHP) have been developed. Since HPP is a nonthermal food and it reduced the carbon emissions as compare with themal treatment.
6	**Target Market** (Industries, Groups, Individuals, Families, Students, etc) Please provide some detail about the end-user of the product, process, or service	Dairy and juices Industries
7	**Team Members** (Names & Roll No.)	Sadia Ahmed (FD-17004) Syeda Bano (FD-17005) Areej Fatima (FD-17007) S. Misbah Hasan (FD-170012)
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10	**Pictures (If any)**	NA
11	**Video (If any)**	NA