



Final Year Project Showcase Batch-2017 Year 2021

Department: Chemical Engineering Programme: Chemical Engineering		
1	Project Idea	Study of Polymer Coated Aggregate used for Pavement of roads to find the best Material Sample for Commercial use
2	Process	Dry Process for flexible pavement
3	Outcome	Enhanced properties and improved life of road material
4	Evidence (Theoretical Basis)	The outcome obtained is stated on the basis of results obtained after testing. Improved strength, hardness, toughness & less moisture susceptibility is observed.
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	Cost Reduction of Existing Product	Recycled waste plastic is used in enhancing the strength of road material which reduces the cost of additional binders.
b	Process Improvement which Leads to Superior Product or Cost Reduction, Efficiency Improvement of the Whole Process	The ordinary aggregate used in road construction ruptures easily and leads to potholes formation resulting in several issues due to weak binding. Incorporating plastic in a certain ratio helped in attaining better strength, toughness, stability, and lesser moisture absorption as plastic improved the binding between the aggregates.
c	Attainment of any SDG	SDG#12: Responsible Consumption and Production There is waste recycling issue in major cities of Pakistan and also there is ample need for construction of new roads as well as repair of old ones.
d	Expanding of Market share	Market share can be expanded to government-run construction companies or private firms.
e	Capture New Market	The construction of plastic roads is a brand new idea in Pakistan so huge market is there to be utilised
f	Any Environmental Aspect	Waste plastic is recycled, so the associated landfilling cost and hazards are reduced.
g	Any Other Aspect	Once municipal waste is recycled for plastic, the concomitant organic waste is managed.
6	Target Market	Target market is public and private roads. Ultimately leading to creation of pilot-scale plant for producing road patches with waste plastic.
7	Team Members (Names & Roll No.)	Aysha Rashid (CH-17020), Shamsah Aslam (CH-17019) Zam Zam (CH-17022), Asma Waseem (CH-17307)
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10	Pictures (If any)	https://drive.google.com/folderview?id=1_s7FvR9XNtcysW27iH6BAvdyunG0fi_Q
11	Video (If any)	https://drive.google.com/folderview?id=1_s7FvR9XNtcysW27iH6BAvdyunG0fi_Q