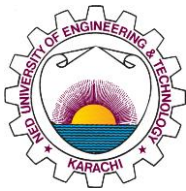


Final Year Project Showcase Batch-2016

Department of Civil Engineering Civil Engineering Program		
1	Project Idea	<p style="text-align: center;"><u>Comparative Study of Conventional RC Building Structure with Precast Construction Technique</u></p> <p>As the AEC industry in Pakistan is focusing on different techniques of construction rather than conventional reinforced concrete structures, such as Rammed or Adobe construction, Precast construction, and Hollow Structural Steel construction. So, this project gives an idea to engineers, builders, and developers about the sort of changes can occur in structure cost and responses when they switch from conventional Cast-in Situ RC Construction to Precast Construction.</p>
2	Process	A ground plus five story residential building process through the design and construction by employing the conventional RC and Precast construction technologies.
3	Outcome	To present the beneficial aspects about the use of precast construction design in building structures compared to conventional practice.
4	Evidences (Theoretical Basis)	In addition to the cost, the time of construction significantly reduced by employing the precast construction technique.
5	<p style="text-align: center;">Competitive Advantage or Unique Selling Proposition</p> <p>Current study project gives an idea to engineers, builders, and developers about the sort of changes can occur in structure overall response and cost when they switch from conventional Cast-in Situ RC Construction to Precast Construction. The outcome shows that 25% overall reduction in cost can be achieved by replacing the conventional RC technique. Moreover, time of construction can be reduced up to 20%.</p>	
a	Cost reduction of existing Product	Approximately 25% cost can be reduced with 20% time of construction.
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)	Implementation of precast concrete in building structures can be improved by projecting its beneficial aspects to the end users.
c	Attainment of any SDG (e.g. How it is achieved and why it is necessary for the region)	Precast concrete is truly a sustainable green product, is also highly durable and uses an extremely low water-cement ratio. Precast manufacturing businesses recycle waste material.
d	Expanding of Market share (e.g.	The idea of selection of precast structure for residential



	how it expand and what is problem with current market	apartments and homes is not suitable according to current situation of AEC industry of Pakistan until the readily handiness of precast elements. So, there must be more industries for precast elements in Pakistan.
e	Capture new market (e.g. Niche market or unaddressed segment)	-----NA-----
f	Any Environmental Aspect (e.g. carbon reduction, energy efficient etc.)	Adoption of precast concrete can reduce 10% the carbon emissions as compared to conventional RC construction.
g	Any Other Aspect	Overall structural serviceability can be improved by the use of precast concrete.
6	Target Market (Industries, Groups, Individuals, Families, Students, etc) Please provide some detail about user of the product, process or service	Construction Industry
9	Team Members (Names & Roll No.)	Rao Moiz Abdullah, Shahroz Ahmed, Shahzaib Hussain, Syed Ebadur Rahman, Talha Riaz Khan, and Syed Ahmed Hassan
9	Supervisor Name	Dr. Aslam Faqeer Mohammad
	Supervisor Email Address	maslam@neduet.edu.pk
10	Pictures	-----NA-----
11	Video	-----NA-----