

Review Form 1.6

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_93594
Title of the Manuscript:	A review of research into the interface properties of ultra-high performance concrete and normal concrete
Type of the Article	Minireview Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journaljerr.com/index.php/JERR/editorial-policy>)

PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>The aim of this paper is to present and compare the mechanical properties and durability of the interface between UHPC and ordinary concrete (NC) in terms of the influencing factors, mechanical properties, and durability of the UHPC-NC interface. The results of the research on the mechanical and durability properties of the UHPC-NC interface are summarised, and the research on the properties of the UHPC-NC interface is presented.</p> <p>I think it would be of great interest to present some diagrams that express the results obtained by different researchers</p>	
Minor REVISION comments	<p>MINOR revisions of punctuation and spelling</p> <p>There is potential to be published in this journal after some minor modifications are made</p>	
Optional/General comments	<p>High-performance concrete is a very advanced construction material based on cement. It is characterised by an ultra-compact matrix with very low permeability and superior resistance to stretching and compression. The development of high-performance concretes has its origins in the studies carried out by Odler, Brunauer, and Yudenfreud in the early 1970s. They investigated high-strength pastes made with a water/cement ratio between 0.2 and 0.3, which were characterised as having low porosity and high resistance in compression - up to 200 MPa.</p> <p>Ultra-high-strength concrete with a compressive strength of up to 250 MPa shows remarkable properties regarding the physical-mechanical characteristics and durability compared even to high-strength concrete. Using these new types of concrete, light constructions can be made with or without classical reinforcement. Beams with large openings, bridges, thin coverings, and high structures, here are just some of the possible applications of these ultra-performing concretes. Bridges with heavy traffic have already been built in France, Holland, and Germany, as well as in Sherbrook (Canada) and South Korea. In 2006, the American Association of State Highway and Transportation Officials (AASHTO), Load and Resistance Factor Design (LRFD) Bridge Design Specifications, developed a design guide for UHPC plate systems, specifying the material characteristics and structural behaviour by analysing the load-bearing capacity of elements like bridge slabs. Provisional calculation recommendations have been published in France and Germany. Some of the first spectacular applications of UPHC are in Canada, Europe, and Asia, demonstrating the advantages of this new technology regarding costs, sustainability, and operational behavior. In most of the materials and articles published on this topic, the imperative necessity of experimentation is emphasised in order to cover the whole range of requests and behaviours in various conditions, with the idea of developing in the future some definitive norms for the design and execution of ultra-high-performance concrete structures.</p> <p>Adhesion problems: Due to its high compressive strength and density, UHPC develops a high unitary adhesion effort.</p>	

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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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