



## PROJECT SUMMARY

<b>Ref No.:</b> MRIC/CRIGS-A40	<b>Title:</b> Investigation of the structural properties and performance of agro waste fibre reinforced concrete
<b>Local Company:</b> Gamma Materials Ltd	
<b>Collaborating Institution:</b> University of Mauritius	
<b>Project Leader</b>	
Dr. Mahen Conhyea	Gamma Materials Ltd
<b>Research Collaborators</b>	
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<b>TECHNICAL ABSTRACT</b>	
<p>‘Investigation of the structural properties and performance of agro-waste fibre (AWF) reinforced concrete’ is an innovative research initiative that Gamma Materials Ltd (GML) in collaboration with the University of Mauritius (UoM) wishes to bring forward on a commercial level based on current research works being conducted in the field of natural by the UoM.</p> <p>The research aspects will be conducted through UoM’s Pole of Research in Natural Fibres and bio based composites, and will focus on the following key issues in order to produce quality fibres (with good mechanical strength) at the minimum cost whilst minimising the environment impact: selection of appropriate AWF to be used as reinforcing material, determination of appropriate extraction and processing of fibres for effective use in concrete, determination of the fibre characteristics for effective mixing in concrete, determination of mechanical properties and performance of the resulting fibre reinforced concrete in terms of shrinkage and crack inhibition for industrial floor.</p> <p>This proposal aims at achieving the following goals: effective use of local agro wastes through the circular economy concept, providing opportunities to enhance farmers’ resilience to the effect of climate change, provide opportunities to reclaim abandon agricultural lands, develop an engineering solution for the construction industry.</p>	
<b>Key Words:</b> Agro-wastes, Natural Fibres, Circular Economy, Reinforced Concrete, Green Technology	