




Individual Project Meeting Record

Project Title	Design and manufacture of an aerodynamic undertray for Formula Student		
Supervisor	Dr. Rob Watson	Student	Dennise Zefanya Tohpati
Date and time	MEETING 13 – 29th January 2021	Location	MS TEAM [ONLINE]
<p><u>Review of actions from previous meeting</u></p> <ul style="list-style-type: none">• Some of the 3D Open Flow bluff body analysis with fences has been done, although in some geometry angle, the convergence was not reached.• Non-manifold geometry has been fixed and the mesh was successful, but the float exception point occurred on the analysis and further investigation is required. <p><u>Discussion, decisions, assignments</u></p> <ul style="list-style-type: none">• Discussed the overall results up to date, from 2D enclosed analysis to 3D Open flow body. Its arrangement on the report also have been discussed.• The temporary conclusion in the 2D & 3D bluff body analysis is “That the 2D analysis may represent the midspan of the 3D analysis, although the 2D analysis may not capture some crucial flow behaviour on 3D geometry. Therefore, the 2D analysis may not be relevant to be used in this type of flow analysis and 3D geometry with additional features (strakes, skirt, etc) to capture all flow behaviour of various undertray”.• Discussed the divergence on the 3D bluff body with strakes. It was suggested that the analysis is done using the first order with reduction in solution relaxation, as well using the density-based might plausibly help. <p><u>Agreed actions and completion dates</u></p> <ul style="list-style-type: none">• Continue to conduct the analysis on the 3D open flow with fences on the diffuser to see if the fences will let the flow stay attached on the diffuser and increase the downforce• Continue the analysis on 3D bluff body with strakes and 3D bluff body with actual undertray.			
Date and time of next meeting	Friday 5 th February 2021	Location of next meeting	MS TEAM [ONLINE]
Supervisor signature		Student signature	Dennise Tohpati