

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: Race Engineering

ASSIGNMENT: Driver Analysis

STUDENT: Daniel Salathiel

DATE: 17/12/18

This section details the assessment criteria. The extent to which these are demonstrated by you determines your mark. The marks available for each criterion are shown. Lecturers will use the space provided to comment on the achievement of the task(s), including those areas in which you have performed well and areas that would benefit from development/improvement.

Common Assessment Criteria Applied	Marks available	Marks awarded	Percent Awarded
1. Research-informed Literature Extent of research and/or own reading, selection of credible sources, application of appropriate referencing conventions. (e.g. Research of testing procedures, vehicle specifics, aerodynamic principles, testing methods etc.)			%
60-69%: Inclusion of a wide range of research-informed literature, including sources retrieved independently. Selection of relevant and credible sources. Very good use of referencing conventions, consistently applied. <i>You have conducted some good background reading, but you could have referenced a wider range of literature to support your knowledge of driver analysis techniques using data acquisition</i> <i>You have conducted some good research into testing methodologies for driver analysis and used these to inform your methodology</i> <i>You have embedded the sources referenced well in your discussions and have used these to support your conclusions and statements. However the scope of sources cited could be larger.</i>	10	6.8	68
2. Knowledge and Understanding of Subject Extent of knowledge and understanding of concepts and underlying principles associated with the discipline. (e.g. Choice of tests and explanation of underlying principles)			
70-79%: Excellent knowledge and understanding of the main concepts and key theories. Clear awareness of challenges to established views and the limitations of the knowledge base. <i>You demonstrate an excellent depth of knowledge of data acquisition analysis techniques and the theoretical impact on car performance of driving techniques.</i> <i>You also show an extensive appreciation for the analysis techniques and principles applied</i> <i>A good understanding of driver techniques and methods for analysis demonstrated. You clearly understand the link between the different KPIs and can relate these to the vehicle situation on track. Secondary impacts could have been explained such as driver approaches influence on consistency, race craft and tyre degradation.</i>	20	15.6	78
3. Analysis Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence (e.g. Analysis of data, findings and use of MATH channels)			
70-80%: Thoroughly logical work, supported by evaluated evidence. High quality analysis, developed independently or through effective collaboration. Ability to investigate contradictory information and identify reasons for contradictions. Strong, persuasive, conclusions, justifiable recommendations <i>Excellent analysis conducted with evidence based conclusions drawn through fundamental assessment of the data obtained.</i> <i>Analysis of each driver is detailed and you have assessed their inputs clearly. Comparison of drivers is excellent with valid improvements and conclusions identified</i> <i>Some clear evidence based observations made through KPI overlays. A good structure to compare drivers using turn by turn assessment of KPIs. Good use of histograms with reasoned conclusions drawn. Throttle usage discussion could be supported with looking at throttle application speed and smoothness. excellent analysis of instruction implementation and performance gains from these. Some use of math channels could have supported your analysis and further improvements for future could have been identified.</i>	40	31.2	78
4. Practical Application and Deployment Deployment of methods, materials, tools and techniques; application of concepts; formulation of innovative and creative solutions to solve problems. (e.g. Test Plan, Use of Motec (2, conclusions drawn from analysis))			
70-79%: An advanced application of a range of methods, materials, tools and/or techniques. The context of the application is well considered, with extensive use of relevant examples. Application and deployment extend beyond established conventions. Innovation and creativity evident throughout. <i>Group 2: Session 1: Test ran smoothly. Obviously a plan and clear instructions for drivers. Data was observed closely and preliminary analysis conducted in real time. Test generally professionally run - you could be a bit slicker with less down time between runs. Good to see notes taken of spins and run wides. Session 2: Test team entered test with clear instructions and requests - you clearly had a plan. Team issued clear instructions to drivers to implement during their sessions - this could have been supported with data overlays to show drivers if you had conducted a new run every instruction. All team members knew their individual tasks and collected data well whilst conducting some good 'live' data analysis to compare with hypothesis. Some good critical analysis of the control cases evident - you noticed drivers who had access to data implementing improvements before instructions given.</i> <i>Some reasonable justification for track choice and test methodology presented. Good to see presentation of improvement suggestions considered.</i> <i>Presentation of results and analysis is excellent. You have used advanced techniques available using the MOTEC software to fully support your conclusions</i>	20	15.3	76.25
5. Skills for Professional Practice Attributes in professional practice: individual and collaborative working; deployment of appropriate media; presentation and organisation. (e.g. Technical report writing and presentation.)			
70-79%: Can communicate professionally and, confidently in a suitable format. Work is coherent, very fluent and is presented professionally. <i>A very professional document which has an excellent structure and is a coherent account of the investigation conducted.</i> <i>Technical report formatting and presentation generally is very good. A couple of minor errors only.</i> <i>Well very structured report Daniel. The findings are clear and concise with sufficient supporting evidence to give confidence in your findings.</i>	10	7.5	75
Assignment Mark (Assessment marks are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed.)	Late Submission Penalties (tick if appropriate) Up to one-week late Over one week late		
	76.4	%	