Assignment 3: Research Methodology Chapter/Paper (30%) - due by 11:59pm, Friday 25/10 (Week 13)

Start Assignment

- Due 25 Oct by 23:59
- Points 100
- Submitting a media recording or a file upload
- Available 30 Sep at 9:00 - 1 Nov at 23:59

The purpose of this assignment is to develop and defend, in a scholarly manner, the research design chapter of your research thesis (if selected, see sample theses listed from lecture notes, also as reports under **Module Wk12 (https://uclearn.canberra.edu.au/courses/16443/modules/215310)** (also sample reports from previous semesters **here (https://uclearn.canberra.edu.au/courses/16443/modules/215313)**) or any relevant thesis from online sources - **https://oatd.org/oatd/search?g=data+analytics&form=basic&pubdate.facet=2015)** ⤷ **(https://oatd.org/oatd/search?g=data+analytics&form=basic&pubdate.facet=2015)** , or a research paper for your selected topic. This will be based on the selected research topic from the previous assignment. The report should outline and justify your selected design, and as relevant - planned sample, planned instruments for data collection or data extraction (if any), planned variables of the study, and planned techniques for data analysis, data presentation and research outcomes presentation. If your research topic is design science (artifact building) ensure you cover analysis/design, and possible benchmark analysis using data as relevant to the topic of your research. Details of the assignment and submission are given under Assignment 3 module **here (https://uclearn.canberra.edu.au/courses/16443/modules/215311)** .

The assignment submission requires you to upload two files:

- Individual Assignment Cover sheet (.docx or .pdf) - as attached

- The assignment answer as a separate file (.docx or .pdf)

It is the student's responsibility to ensure that their answer addresses the assignment requirements and marking criteria (rubric). Also, it is the student's responsibility to upload the correct file and ensure on time submission.

Assignment 3 Rubric

Criteria	Ratings	Pts
Your chosen research title and abstract (summarising research topic/questions/expected outcomes) Research design (use Research design guide from lectures or sample papers/thesis) Summarise your proposed research topic, questions and highlight your expected outcomes in your abstract. Is this a quantitative research, qualitative research, mixed method, or design science research that uses quantitative and/or qualitative techniques, explain.		15 pts
Planned sample, population or subject selection or design science If data driven - What are your data sources? who will provide you with the data you need for your research (people, organizations, existing data set, the literature?). What sampling techniques you plan to use (if relevant), explain. If design science - explain using design science chart (see tutorial/lecture notes) the different stages of proposed development of your research for each given stage of the methodology. Include your plan for evaluation/validation.		15 pts
Planned instrumentation and materials for data collection What data collection techniques you plan to use that are appropriate to your research problem and selected design? explain. If relevant, how would you design an artifact to solve the research problem - algorithm design, implentation environment, testing		15 pts
Planned variables in the study What data you plan to collect? what is the nature of this data (quantitative, qualitative, images, files, audio, video, etc.), explain.		15 pts
Plan for data analysis Will you use quantitative or qualitative data analysis techniques or both (mixed), explain. Will you need to pre-process data? Why/how? If design science, what data will you need to test your design?		15 pts
Plan for data and outcomes presentation Which technique(s) you plan to use for displaying your input and output data (text, tables, graphs, statistical measures)? Which visualisation/charting tools will you use? explain.		15 pts
Formatting, Referencing Develop your report as a conference paper in the IEEE format - A4 at **https://www.ieee.org/conferences/publishing/templates.html** ↪ **(https://www.ieee.org/conferences/publishing/templates.html)** . (double column conference format) - including an abstract of maximum of 200-300 words. Ensure your citations are correctly embedded in the body of your text and corresponding references added under bibliography of your paper.		10 pts
		Total points: 100