**Faculty of Business and IT**

**Manukau Institute of Technology**

**Course**: Advanced Data Analytics

**Assessment type**: Research Essay

**Word limit:** App. 3000-4500 words (including reference list)

Contribution to final grade: 30%

Prepare a research essay on any of the following topics:

1. Advanced data analytics models and techniques
2. Supervised learning algorithms related to classification, prediction and or regression
3. Unsupervised learning topics related to clustering
4. Semi-supervised learning topics
5. Data preprocessing, data cleansing, etc.
6. Data analytics in applications such as trade, marketing, healthcare, medical informatics, social science
7. Case studies with experimental data analytics related to real world applications
8. Feature selection techniques
9. Distributed data mining models
10. Big data storage and data sharing issues
11. Big data environments such as Hadoop and or Sparks
12. Operational big data platforms
13. Open source big data models

Your research essay must have:

a. Title of your topic, your Student ID and Name, Course Code and Title, Programme Title

b. An abstract of 100-200 words

c. Keywords: 6

d. An Introduction: 400-600 words and literature review 1000-2000 words

e. Results Analysis and or discussion: 1000- 1500 words (discussion must be supported by literature)

f. Conclusion: 200-500 words (this must support Introduction and Discussions)

g. Referencing: APA 6 format.

**Submission Date**: 22nd of August, 2018 @ 16:00 PM pm via Canvas (Turnit in)

Note:

1. This is an individual assessment. You must neither share your work with fellow students nor take any help and support from others in writing your essay.
2. You must **not** copy any materials from any sources, except for properly cited quotations. You must also use para phrasing with references for the literature review. Please note Turnitin will be used to assess your essay for originality. Any plagiarism found will be dealt with in accordance with the Programme and MIT Regulations.
3. The attached cover sheet must also be submitted with your essay.

**Mark allocation:**

Title: 2 marks

Abstract: 10 marks

Keywords: 1 mark

Introduction : 5 marks

Literature Review: 25 marks

Data &Results Analysis / discussion: 30 marks

Conclusion: 10 marks

Referencing: 7 marks

Overall presentation: 10 marks

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|  | **Faculty of Business and Information Technology**  **563.784– Advanced Data Analytics**    **Assignment Cover Sheet** |
| Assessment | Research Essay |
| Student ID(s): |  |
| Student Name(s) |  |
| Student MIT email(s): |  |
| Submitted to Canvas: | Date: |
| Declaration of Original Authorship   1. This assignment is my/our own original work. 2. I/We have not copied either partially or in full any work from any other student or former student at Manukau Institute of Technology or any other tertiary institution. 3. This assignment has not previously been submitted for assessment, either in whole or in part, for any other course at Manukau Institute of Technology or any other tertiary institution. 4. I/We have acknowledged all sources of information used in the writing of this assignment by using the recognised in-text APA referencing standard. All unpublished sources of information have been acknowledged. 5. I/We understand that MIT may make use of systems such as Turnitin.com to verify the originality of my work.   I/We make this declaration in full knowledge and understanding that, should it be found false, Manukau Institute of Technology may take action according to MIT Policy AM6 Misconduct in Assessment.  Signed by Student(s):  Date: | |