## Unit 12: Research Topics in Computer Science – Data Science, AI and

## Standards

## **Required Reading**

• Read Chapters 11 and 12.2 of your core text book: Brookshear, J. and Brylow, D. (2018), *Computer Science - An Overview*. 13th Ed. Harlow: Pearson.

## **Additional Reading**

- This is an example of expert system : Dreyfus, H. (2010) From Socrates to expert systems: The limits and dangers of calculative rationality. University of California, Berkeley, the Department of Philosophy.
- This is a tutorial on artificial intelligence: Jain A.K. et el.(n.d.) Artificial Neural
- Networks: A Tutorial.
- Khan, A., Baharudin, B., Lee, L.H. & Khan, K. (2010 A review of machine learning algorithms for text-documents classification. *Journal of advances in information technology* 1(1): 4-20.
- MIT: Linear Algebra
- MIT: Multivariate Calculus
- Sherman, R. (2014) Strong AI strong artificial intelligence and consciousness. *Social Psychology of Cyberspace.*
- Turing, A. (1950) Computing machinery and intelligence. *Computing Machinery and Intelligence Mind* 59: 433-460.
- This Guardian article reports the AI use in Google data centre: Guardian. Application of AI in Google Data Centre.
- <u>Case studies on the success stories of AI and IoTs: Artificial Intelligence and</u> <u>Machine Learning Success stories [IoT Summit 2017]</u>
- If you wish to advance your career in machine learning this tutorial is very helpful: Machine Learning with Python. Machine Learning Tutorial
- <u>A case example of applying machine learning in industry: Machine Learning at</u> <u>Uber (Natural Language Processing)</u>