UEMH3163/UECS2053/UECS2153

Artificial Intelligence

Lecturer's Information

- Dr. Ng Oon-Ee
- FE30(2), KB 8th Floor
- ngoe@utar.edu.my

- https://tinyurl.com/AIMay2019 (WhatsApp group)

Scan me

Class Schedule

- Duration 14 weeks – 28th May to 30th August
  - Public holiday in week 2 Wednesday (5th June)
- Lectures
  - Tuesdays 11 am (2hr), Wednesdays 2 pm (1hr)
- Lab sessions (all at KB606)
  - 2:30-5:30 on Fridays

Course Synopsis

This course introduces basic artificial intelligence concepts, including supervised and unsupervised learning, problem-solving concepts, neural networks, and data science.

Course Learning Outcomes

After completing this course, students will be able to:-

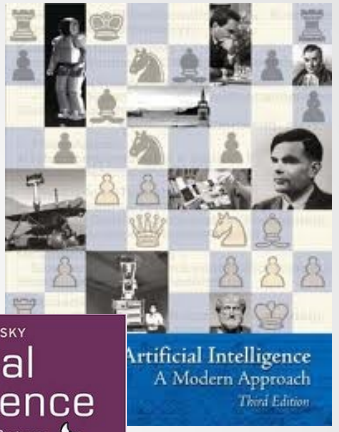
- Explain the fundamental concepts of AI systems
- Analyse complex search problems with appropriate techniques
- Design AI systems for various selection, recognition and decision-making problems
- Demonstrate practical AI systems

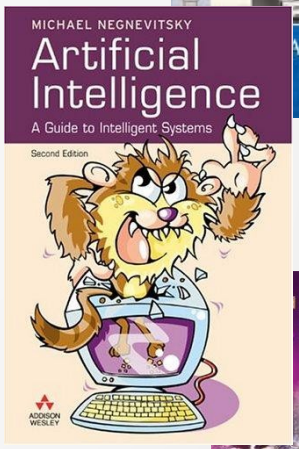
Assessment

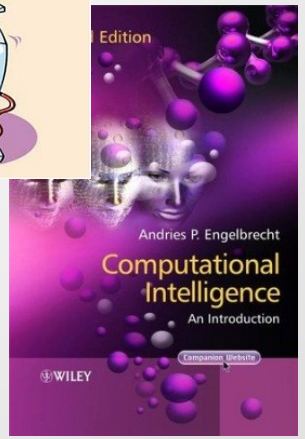
- Coursework marks – 40%
  - Labs (2 in total) – 30%
  - Test – 10%
- Final exam – 60%

References

- Stuart J Russell & Peter Novig. *Artificial Intelligence: A Modern Approach (3rd Ed.)* Prentice Hall (2009).
- Michael Negnevitsky, *Artificial Intelligence: A Guide to Intelligent Systems (3rd Ed.)* Addison Wesley (2011)
- Andries P. Engelbrecht, *Computational Intelligence: An Introduction (2nd Ed.)* Wiley (2007).

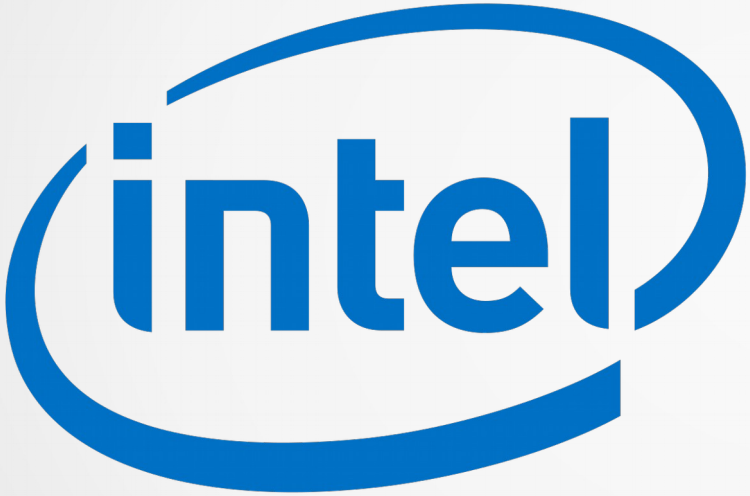




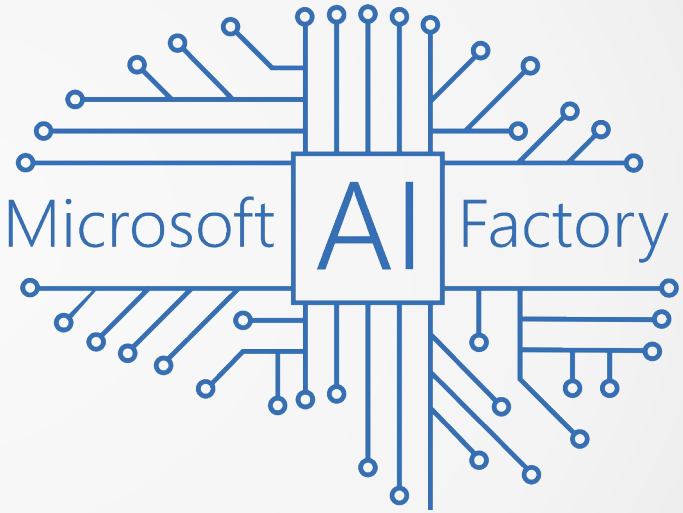


Additional Certifications

Intel (guaranteed)



Microsoft (conditional)



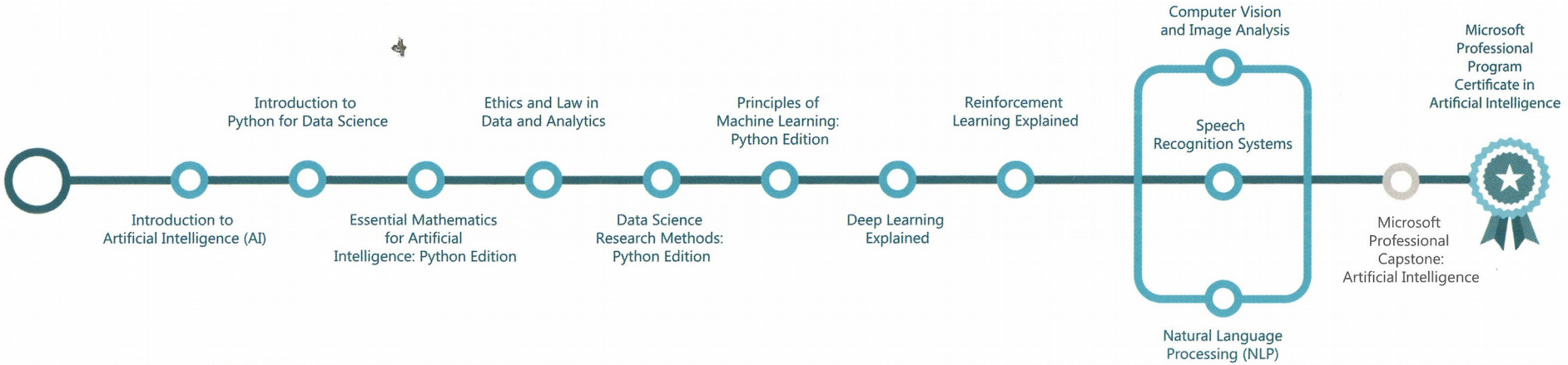
Microsoft Professional Program

- Register for a (free) account at
  - https://training.iverson.com.my
- Username MUST be UTAR-<full name here>
  - E.g. UTAR-Ng Oon-Ee
  - Name must match your registered UTAR name (this is what will be printed on the certificate)
- Complete (70% minimum score) 4 of the Artificial Intelligence Track courses
- 1 is mandatory (for our Lab 1)

10
REQUIRED COURSES
12-48
HOURS PER COURSE
10
SKILLS

Microsoft Professional Program for Artificial Intelligence

The AI track takes aspiring AI engineers from a basic introduction of AI to mastery of the skills needed to build deep learning models for AI solutions that exhibit human-like behavior and intelligence.



You'll Learn to:

- Introduction to Artificial Intelligence (AI)
- Introduction to Python for Data Science
- Essential Mathematics for Artificial Intelligence
- Ethics and Law in Data and Analytics
- Data Science Essentials
- Build Machine Learning Models
- Build Deep Learning Models
- Build Reinforcement Learning Models
- Develop Applied AI Solutions

Software Requirements

- Anaconda (www.anaconda.com/distribution)
- Download/install the latest Python 3 version
  - Python 2 is EOL and not useful for our course
- Download 64-bit if your Windows is 64-bit
- For Mac/Linux users, there are appropriate versions
  - Anyone interested in Linux is encouraged to speak directly to me
- Once setup, install seaborn, tensorflow, and keras