CHUA CHU KANG COMMUNITY CLUB
IT Centre
35, Teck Whye Ave Singapore 688892

Skillsfuture@PA Foundational Artificial Intelligence

Objective:

This is a foundational course to introduce AI-Machine Learning technology, using Python Programming Language and the Tensorflow Framework. It aims to help participants to comprehend what AI technology is and what happens in AI applications. Participants will receive hands-on training in writing programmes which are trained, tested and validated.

Who should attend:

Any individual who has keen interest in programming / AI. No programming background is necessary, though some understanding of Python is expected but not necessary. Baseline knowledge about web browsers / Windows OS is expected.

Equipment:

This course requires a computer with Internet connection and access to Google Apps (Collab). Alternatively, a portable browser-based compiler can also be used. In both situations, access to a web browser is necessary.

Course Outline:

This course is to be delivered across 4 sessions of 2 Hours each.

Session 1

- Introduction to AI
- Discussion about AI
- Understanding AI principles / Tools
- Python Programming Basics
- Python Variables, Methods and Functions

Session 2

- Building logical Python Programs
- Exploring operators and functions
- Object oriented structures
- Exploring Python Libraries
- Basics of Arrays / Lists / Tensors

Session 3

- AI basic principles
- Chatbot modelling
- Building keras model
- Tokenizer and response generation
- Training, Testing, Validation of model

Session 4

- Designing convolutional neural network for image classification
- Building, tuning and optimizing model (from dataset)
- Using a Tslite capsulated weightage of model