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Data Science Workshop (Level I)

Data Mining in STEM Education

Prof Yu Leung Ho Philip and other instructors

Department of Mathematics and Information Technology

The Education University of Hong Kong



Application Deadline

17 Apr 2023

12:00 noon

Intended Learning Outcomes

Upon completion of the programme, participants should be able to:

1. acquire the big data analysis using various data mining techniques;
2. apply data mining techniques in STEM education;
3. infuse data mining techniques for extracting useful information from big data;
4. learn about applications of data mining for real life problems through hands-on activities;
5. discuss ethical issues in data science exploration and application.



◆ Introduction

Have you ever wondered how Netflix would even recommend the next show based on your interests and how Instagram shows you sponsored advertisements? Even the food ordering apps figure out what food you will order based on voice conversations. That's why all big brands and companies are running behind Data Mining. Let's learn about this crucial data mining skill through this workshop jointly organized by HKAGE and the Department of Mathematics and Information Technology (MIT) of the Education University of Hong Kong (EdUHK).

In this workshop, you will learn about data mining techniques and their applications in STEM Education. You will be taken on the step-by-step journey of the data mining process by a series of hands-on activities designed by the postgraduate students of Master of Science in Artificial Intelligence and Educational Technology (MSc(AI&EdTech)) and Master of Arts in Mathematics and Pedagogy (MAMP) under the guidance of Prof Yu Leung Ho, Philip (Head and Professor) and Dr. Singh Manpreet (Lecturer) of the MIT of EdUHK. You will be involved in two STEM lessons that apply data mining strategies to solve real-world issues.

The workshop is under collaboration with The Education University of Hong Kong.

◆ Schedule

| Session | Date | Time | Venue |
|---------|-------------|-----------------------|---|
| 1 | 29 Apr 2023 | 2:00 p.m. – 4:00 p.m. | D2-LP-08 D3-G-02 STEM Lab (Block D2, Lower Podium) The Education University of Hong Kong (Location) |

◆ Target Participants

- S1 – S6 HKAGE student members in 2022/23 school year only
 - Class size: 80
- * First-come-first-served.

◆ Pre-requisite

No special prerequisites are needed

◆ Medium of Instruction

English with English handouts

◆ Certificate

E-Certificate will be awarded to participants who have:

- attended ALL sessions; AND
- completed all the assignments with satisfactory performance