E1DAS002W

(Token-required)

[Gifted Programme]

Data Science Workshop (Level I)

Data Mining in STEM Education

Prof Yu Leung Ho Philip, Dr Singh Manpreet and other instructors Department of Mathematics and Information Technology The Education University of Hong Kong



Intended Learning Outcomes

Result Release 7 April 2025

Upon completion of the gifted programme, gifted students 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.

Gifted Programme 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(Al&EdTech)) and Master of Arts in Mathematics and Pedagogy (MAMP) under the guidance of Prof Yu Leung Ho, Philip and Dr. Singh Manpreet of the MIT of EdUHK. You will be involved in the STEM lesson 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	3 May 2025 (Saturday)	2:30 p.m 4:30 p.m.	D3-LP-11 (Block D3 LP) The Education University of Hong Kong (Location)

Suitable for

- S1 S6 HKAGE student members in 2024/25 school year.
- Class size: 45
- Student members would be selected randomly by the computer system. The decision of HKAGE on the result of the selection should be final.

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