

# **A predictive model of the enrolment in the key subject of STEM education using the machine learning paradigm**

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## **ABSTRACT**

The presence of a global health crisis on coronavirus pandemic (COVID-19) has been accelerated the global uptakes the transformation towards the digital economy. Consequently, the rapid digital transformation has risen the demands of technologically competent workforces in which open the big doors for the education and careers of Sciences, Technology, Engineering and Mathematics (STEM). Due to Additional Mathematics is the principal subject for the STEM related subjects in producing qualified and skilful human capital demanded in 21 st digital economy era. Therefore, this article presented a predictive model of the enrolment in Additional Mathematics using a supervised machine learning model, namely binary logistic regression model. The findings of this article can be beneficial the decision makers by taking appropriate initiatives in increasing the number upper secondary students enrol in STEM education, particularly school teachers and students' parents.

## **KEYWORDS**

Additional mathematics; STEM; Binary logistic regression

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