

# International Conference and Advanced Workshop on Modelling and Simulation of Complex Systems



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## Deep Learning Platform Comparisons & A Predictive Model for Real-Time Offline Application.

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This paper explores predictive modelling, a mathematical technique used to analyse data patterns for forecasting future events or outcomes. Predictive modelling is a crucial component of predictive analytics, a data analytics discipline that employs machine learning and data mining methods to forecast activity, behaviour, and trends using both current and historical data. Initially, the paper focuses on comparing available computing platforms for deep learning. Subsequently, it delves into predicting the torque required for an exoskeleton system, enabling wearers to effortlessly lift objects. This prediction is based on input from sensors embedded in the exoskeleton and utilises available features in an offline real-time setting. The results demonstrate the effective prediction of torque based on historical data. Furthermore, the paper discusses various offline applications of the proposed system. The successful prediction of torque opens up avenues for exploring diverse offline uses of the technology.

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