Image Recognition Performance Benchmarking for Edge Computing Using Small Visual Processing Unit

Authors : Kasidis Chomrat, Nopasit Chakpitak, Anukul Tamprasirt, Annop Thananchana

Abstract : Internet of Things devices or IoT and Edge Computing has become one of the biggest things happening in innovations and one of the most discussed of the potential to improve and disrupt traditional business and industry alike. With rises of new hang cliff challenges like COVID-19 pandemic that posed a danger to workforce and business process of the system. Along with drastically changing landscape in business that left ruined aftermath of global COVID-19 pandemic, looming with the threat of global energy crisis, global warming, more heating global politic that posed a threat to become new Cold War. How emerging technology like edge computing and usage of specialized design visual processing units will be great opportunities for business. The literature reviewed on how the internet of things and disruptive wave will affect business, which explains is how all these new events is an effect on the current business and how would the business need to be adapting to change in the market and world, and example test benchmarking for consumer marketed of newer devices like the internet of things devices equipped with new edge computing devices will be increase efficiency and reducing posing a risk from a current and looming crisis. Throughout the whole paper, we will explain the technologies that lead the present technologies and the current situation why these technologies will be innovations that change the traditional practice through brief introductions to the technologies such as cloud computing, edge computing, Internet of Things and how it will be leading into future.

Keywords : internet of things, edge computing, machine learning, pattern recognition, image classification

Conference Title : ICWSNIT 2022 : International Conference on Wireless Sensor Networks and the Internet of Things

Conference Location : Bangkok, Thailand

Conference Dates : January 14-15, 2022