

# Optimizing Implementation of SNN for Embedded System

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**Abstract**— Spiking neural networks (SNNs) are a highly promising AI technology for embedded systems, owing to their energy-efficient properties. However, the manual implementation of SNNs encounters practical challenges because of the all-to-all connections in large networks. Thus, this paper presents a novel methodology to reduce wire congestion in the SNN implementations while mitigating adverse effects on inference accuracy.

**Keyword**— back propagation through time, deep learning, embedded system, hardware, spiking neural networks

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