

## Published Researches الأبحاث المنشورة

<b>Title</b> عنوان البحث	<b>Machine Learning-based Detection and Prevention of DoS and DDoS Attacks in SDWSN</b>
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<b>Link</b> رابط البحث من موقع المجلة	<a href="https://ijeee.edu.iq/earlyview/">https://ijeee.edu.iq/earlyview/</a> <b>ملاحظة:</b> تم الحصول على موافقة النشر وبانتظار نشر البحث على الموقع الرسمي
<b>Abstract</b> خلاصة	<p>Software Defined Wireless Sensor Networks (SDWSN) has emerged as a contemporary model to achieve dynamic and secure control in the realm of Internet of Things (IoT) applications. By leveraging the benefits of Software Defined Networks (SDN), SDWSN enables ease of management and configuration of wireless networks, thereby overcoming the challenges associated with traditional Wireless Sensor Networks (WSN). However, SDWSN networks are susceptible to emerging network intrusion and threats, particularly Denial of Service (DoS) and Distributed Denial of Service (DDoS) attacks, which can significantly impact the network's performance and cause operational losses. This study proposes a machine learning based algorithm for detecting and preventing DoS and DDoS attacks in SDWSN networks. The proposed algorithm uses various features to distinguish between benign traffic and malicious traffic generated by attacks. The results demonstrate that the proposed algorithm can effectively detect and prevent DoS attacks, significantly contributing to the security of SDWSN networks.</p>