

如何查詢領域排名、Impact Factor 值與 SDGs

請先進入本校圖書館網站(<https://library.ntust.edu.tw/home.php>)

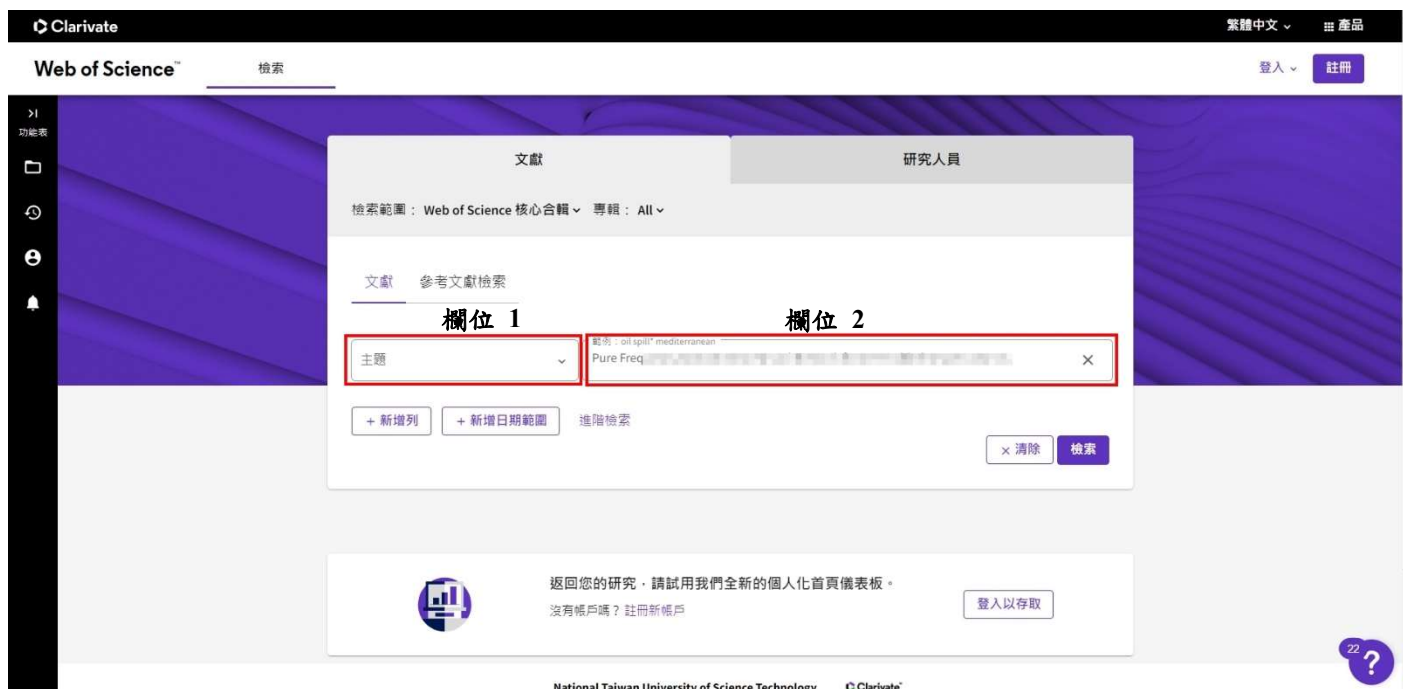
步驟 1：點選電子資料庫



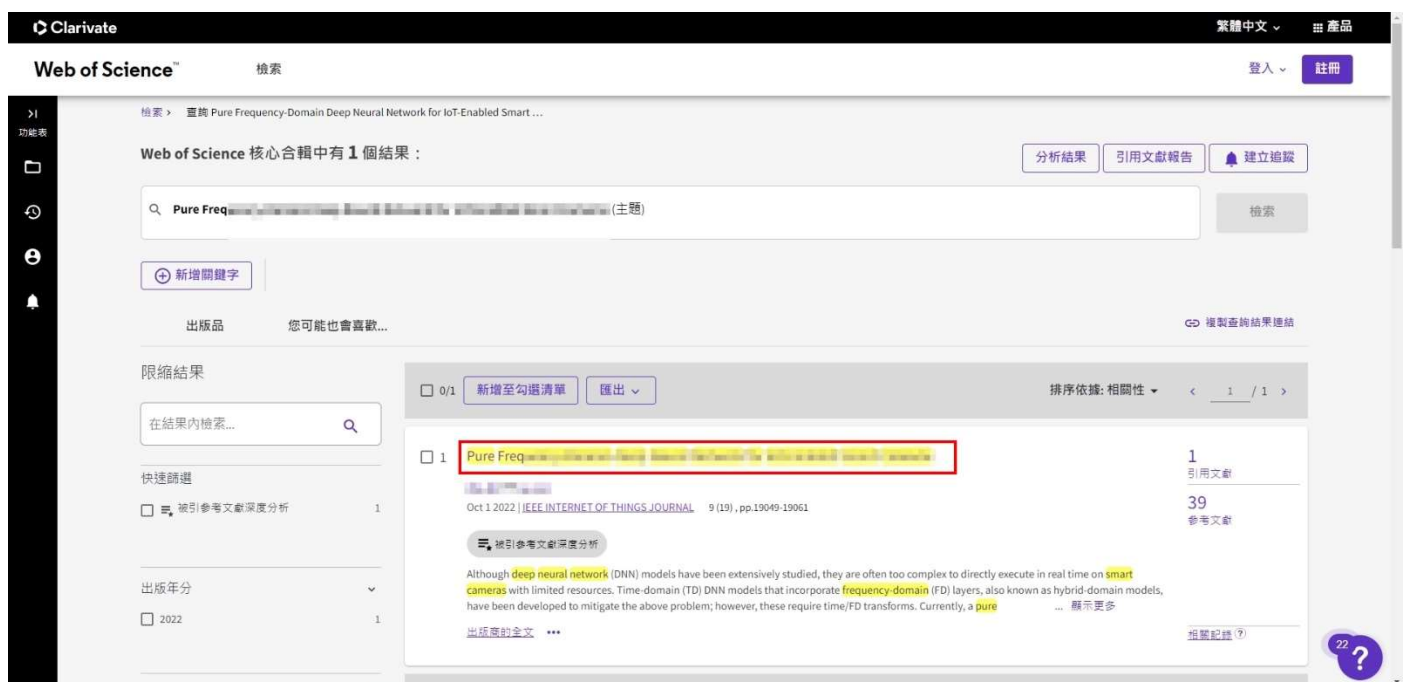
步驟 2：點選 Web of Science / WOS



步驟 3：欄位 1 為下拉式選單，選擇【主題】，
欄位 2 請【輸入完整論文名稱】，再點選【檢索】，進行搜尋。



步驟 4：搜尋後，會出現該篇論文相關資訊，敬請點選【您的論文名稱】。



步驟 5：進入畫面後，請點選【期刊名稱】，即可找到【Impact Factor 值】及【領域排名】。

出版商全文

Pure Frequency-Domain Deep Neural Network for Smart Cameras

作者

Journal

IEEE INTERNET OF THINGS JOURNAL

卷冊: 9 期: 19 頁面: 19049-19061

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文獻類型

Article

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摘要

Although deep neural network (DNN) models have been extensively studied, they are often too complex to directly execute in real time on smart cameras with limited resources. Time-domain (TD) DNN models that incorporate frequency-domain (FD) layers, also known as hybrid-domain models, have been developed to mitigate the above problem; however, these require time/FD transforms. Currently, a pure FD DNN does not exist. Thus, our study proposes the first of such, along with our lightweight time/FD transform. Our model ensures that the networks perform faster on smart cameras and are more memory efficient, both of which are important for smart cameras utilizing edge computing. Unlike existing TD or hybrid-domain studies, our model optimizes several internal neural network layers and implements a lightweight time/FD transform to reduce the number of calculations. More importantly, our study is the first to realize an FD fully connected layer, which can better represent a spectral feature distribution. The experimental results show that our accuracy slightly outperforms that of the existing time and hybrid-domain studies. In addition, our model's inference speed on the edge computing platform was shown to be faster by a maximum of 52.01% for the MNIST data set and 52.00% for the CIFAR-10 data set. Furthermore, our model can improve frames per second (FPS) by at least 52.00% and memory usage by 43.64%, and save approximately 26.09% of power consumption for the MNIST data set.

期刊資訊

IEEE INTERNET OF THINGS JOURNAL

出版機構名稱: IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC

② 【Impact Factor】

期刊 Impact Factor™

10.6

2022

11.1

五年

③ 【領域排名】

JCR 領域	領域排名	領域四分位
COMPUTER SCIENCE, INFORMATION SYSTEMS 於 SCIE 版本	4/158	Q1
ENGINEERING, ELECTRICAL & ELECTRONIC 於 SCIE 版本	13/275	Q1
TELECOMMUNICATIONS 於 SCIE 版本	5/88	Q1

來源: Journal Citation Reports 2022. 深入瞭解

期刊 Citation Indicator™

2.61

2022

2.77

2021

步驟 6：另，確認是否有加權 SDGs 部分，敬請於該頁面，向下滑找到【類別/分類】，如有收錄於 SDGs 就會出現【永續發展目標 SDGs 的類別】，如未收錄之期刊，將無顯示。

出版商全文

匯出

新增至勾選清單

< 1 / 1 >

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研究領域: Computer Science; Engineering; Telecommunications

Citation Topics 4 Electrical Engineering, Electronics & Computer Science

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4.17.128 Deep Learning

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