



溫室害蟲自動影像辨識演算法

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簡歷：

<http://www.bime.ntu.edu.tw/en/member/faculty/Ta-Te-Lin-32299982>



市場及需求：

溫室作物若不定期監控其害蟲數量將可能導致嚴重的病害及損失。而傳統的溫室害蟲管理通常仰賴人工作業以黏蟲紙定期監測來計量與分析溫室內之蟲相，此方式不但耗時且耗費人力。本技術所開發之系統將可以快速獲得作物栽培環境資訊與害蟲資訊，自動化達成智慧蟲害整合管理。

技術摘要：

本技術利用深度學習演算法，可以直接偵測黏蟲紙影像上的害蟲數量與種類，且達到 95% 以上的辨識準確率。

優勢：

本技術使用的演算法可以大幅的省去人工計算黏蟲紙上害蟲的時間與勞力，也可以避免因眼力疲乏而造成誤算，進而減少因害蟲而造成的作物損失，提升農產品之國際競爭力。

競爭產品：

無

聯絡方式：臺大產學合作總中心

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Automatic greenhouse insect counting and environmental monitoring system

PI : Prof. Ta-Te Lin

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Experience:

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Market Needs:

Nowadays, farmers use sticky papers traps to monitor the amount of insect pests in an area which is very time consuming and inaccurate. Without monitoring the number of insect pests, some crops may incur sickness or decay in a short matter of time which is very difficult to control. The designed system can help in automating the insect pest counting and identification process in a very quick and accurate manner.

Our Technology:

We present a two-stage deep learning algorithm to identify greenhouse insect pests on the sticky paper trap. Our model achieves a 95% accuracy on identifying insect pests.

Strength:

With the help of our automatic insect pest detection system, the time and labor required for manually counting insects on the sticky paper can be drastically reduced. In this case, the financial loss caused by pest crop damage can be mitigated, making agricultural products more competitive in the global market.

Competing Products:

None

Contact (do not need to fill out):

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