

**TECH OFFER**

## Automating Medical Certificate Submission using Named Entity Recognition Model



### KEY INFORMATION

TECHNOLOGY CATEGORY:  
Infocomm - Artificial Intelligence

TECHNOLOGY READINESS LEVEL (TRL): **TRL8**

COUNTRY: **SINGAPORE**

ID NUMBER: **TO175068**

### OVERVIEW

The technology presented is an Artificial Intelligence (AI) model developed to extract essential information from scanned medical certificates. The trained model can extract pertinent details from medical certificates issued locally in Singapore and can help companies streamline their medical leave management process by automating the approval of medical leave requests. The extracted details can also help in seamless integration with a company's existing workflow. The technology enables prompt and precise handling of leave requests and thus reduces administrative workload, processing time and errors introduced due to manual entry.

### TECHNOLOGY FEATURES & SPECIFICATIONS

The trained AI model recognizes terms and entities from scanned medical certificates. This includes but is not limited to -

1. Clinic name

2. Clinic address
3. Clinic telephone number
4. Patient name
5. Start date of medical leave
6. End date of medical leave
7. Duration of medical leave

The Name Entity Recognizer (NER) model is trained based on an open-source library and can be integrated with the existing workflow or system to automate the extraction of information for approval or recording purposes.

## POTENTIAL APPLICATIONS

The model, in its current state, is trained on a diverse dataset of medical certificates issued in Singapore and is suitable for application in systems providing Document Management and Human Resource solutions. The application of the model will particularly be useful for -

- Companies looking to automate their medical leave processing or application workflow.
- Insurance providers.
- Vendors specialising in Document Management, HR software solution, Payroll, and Attendance solutions. The model can be integrated into their existing solution to value add in the processing of medicate certificates.

## UNIQUE VALUE PROPOSITION

The model is implemented using Natural Language Processing and deals with the domain of Named Entity Recognition. It has been trained using a diverse dataset of medical certificates issued in Singapore and is able to recognize entries of interest automatically from a scanned copy of the document. The model is able to take in the variation of formats, prints and naming of the entries and provide a recognizable input to the software systems making use of it.