

Development of an Artificial Intelligence system for counting the number of people to reduce congestion

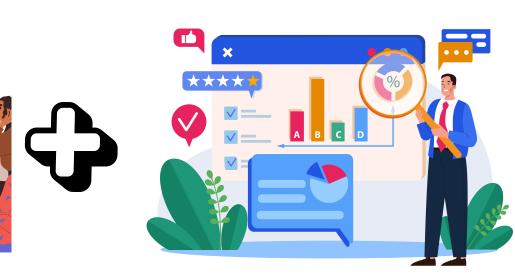
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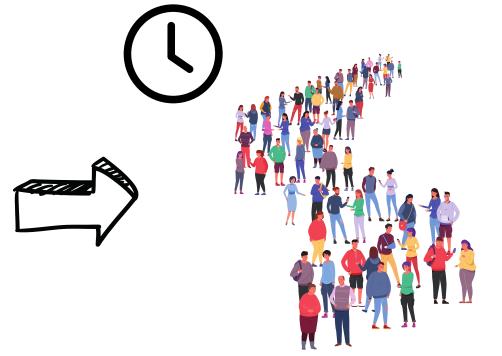
## Problem



People are crowded in the area.

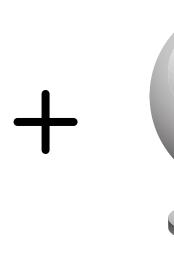


The number of people who have problem with crowded



Wasting time in vain

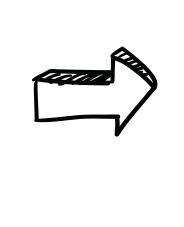




Applying artificial intelligence to be able

to process congestion.









Artificial intelligence program for congestion analysis



## Finding

#### CiraCore Program



The display page of the program that can be accessed when uploading real-time images of the number of people to be analyzed. After that, the program will proceed within a short period of time. When the analysis results come out, users can see suggestions that the availability is full or exceeded.

5 minutes

4 minutes

3 minutes

2 minutes

1 minute

5 minutes

4 minutes

3 minutes

2 minutes

1 minute

**Displaying People Detection (%)** 

**Displaying People Detection (%)** 

98%

96%

90%

Display text (%)

Display text (%)

99%

97%

91%

82%

70%

99%

99%

98%

96%

94%

#### Round 1

5 minutes

4 minutes

3 minutes

2 minutes

1 minute

5 minutes

4 minutes

3 minutes

2 minutes

1 minute

• Round 2



### Framework



Study and research the content related to program development



Develop the program according to the plan

Flowchart



Create a picture case for creating a model of program



Test the performance of the program

Model of

MAUB



Plan and design program development



Improve and complete the program

CIRACORE image classify

Datasets

Number of people

Available

Full

Excess

**Training Part** 



# Interpretation and conclusion

Development of an Artificial Intelligence system for counting the number meeting room is equally important because the meeting room is a place that is continuously used for internal meetings, seminars or workshops. Knowing the space effectively. In this article, we will explore the functions and importance of people counting and people counting, as well as the benefits of using these technologies in various areas such as security, resource management, planning and administration, and epidemic prevention through clear examples using



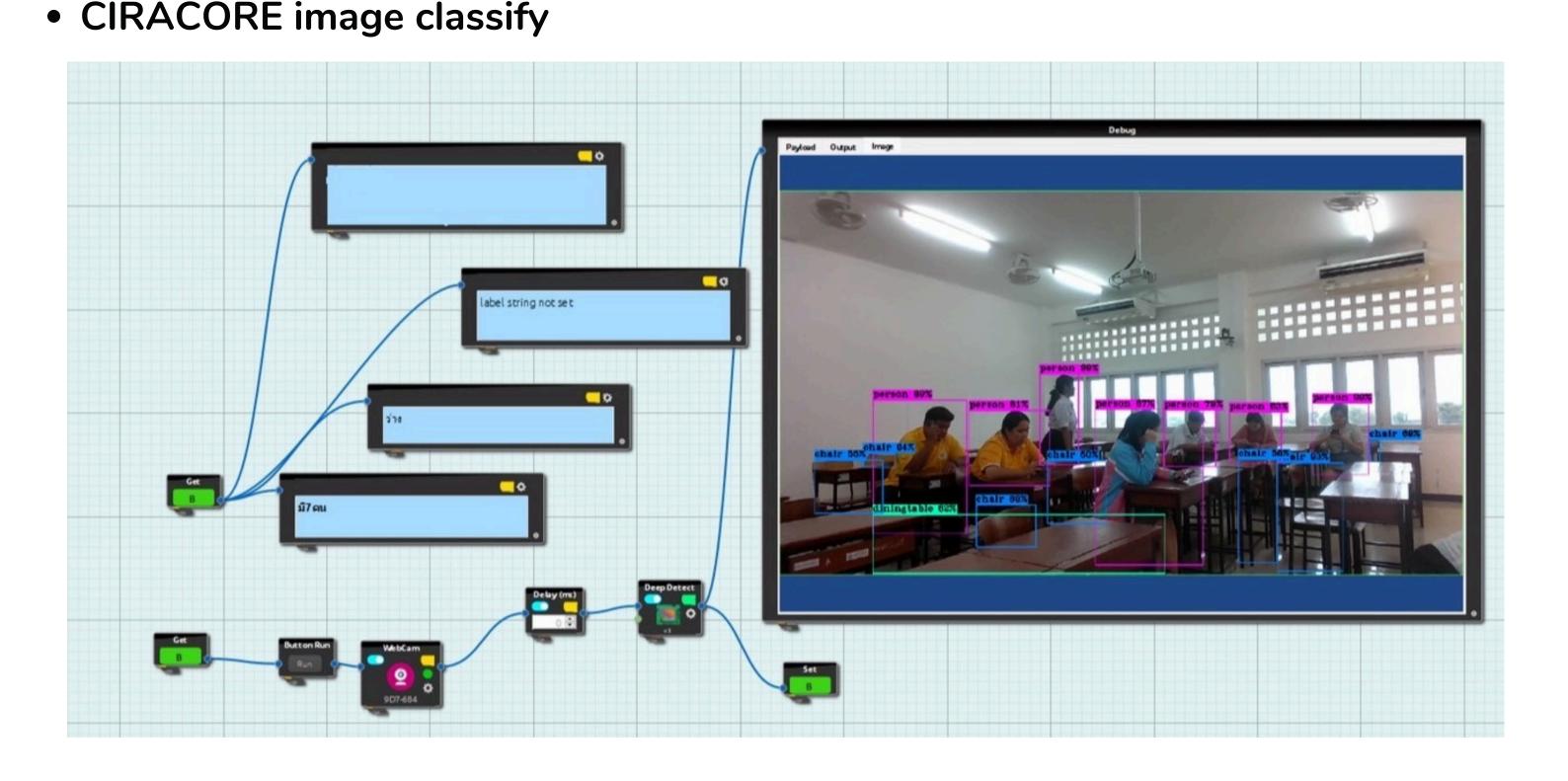
of people to reduce congestion such as counting the number of people in a number of people in the meeting room helps to manage and plan the use of the core platform of Cira and deep learning techniques through the Deep method on the core platform of Cira, the Al can learn to count the number of people. The results show that the AI system can count the number of people with an accuracy of 92.5%, given the data of the number of people. It also helps to count people quickly and reduces the effort of manual counting.



Result &

MAUB

program





# Reference

[1] old-book.ru.ac.th.What is congestion?(online).Search on 26 July 2024. from.http://old-book.ru.ac.th/

[2] researchgate. What is a counting system? (online). Search on 26 July 2024. fromhttps://www.researchgate.net/publication

[3] salika. What is cira core program? (online). Search on 26 July 2024. from https://www.salika.co/2022/07/17/cira-core-ai-platform-forrobotics-course/