## **Energy Conservation in Data Centres**

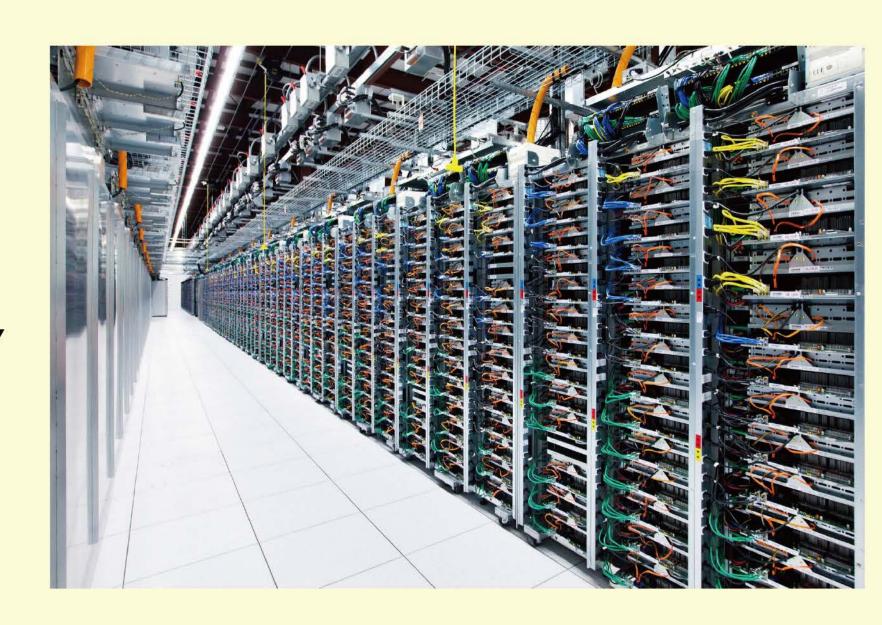


Student: TSANG Chin Yu Programme: BEngINFE

Supervisor: Dr WONG, Eric W M

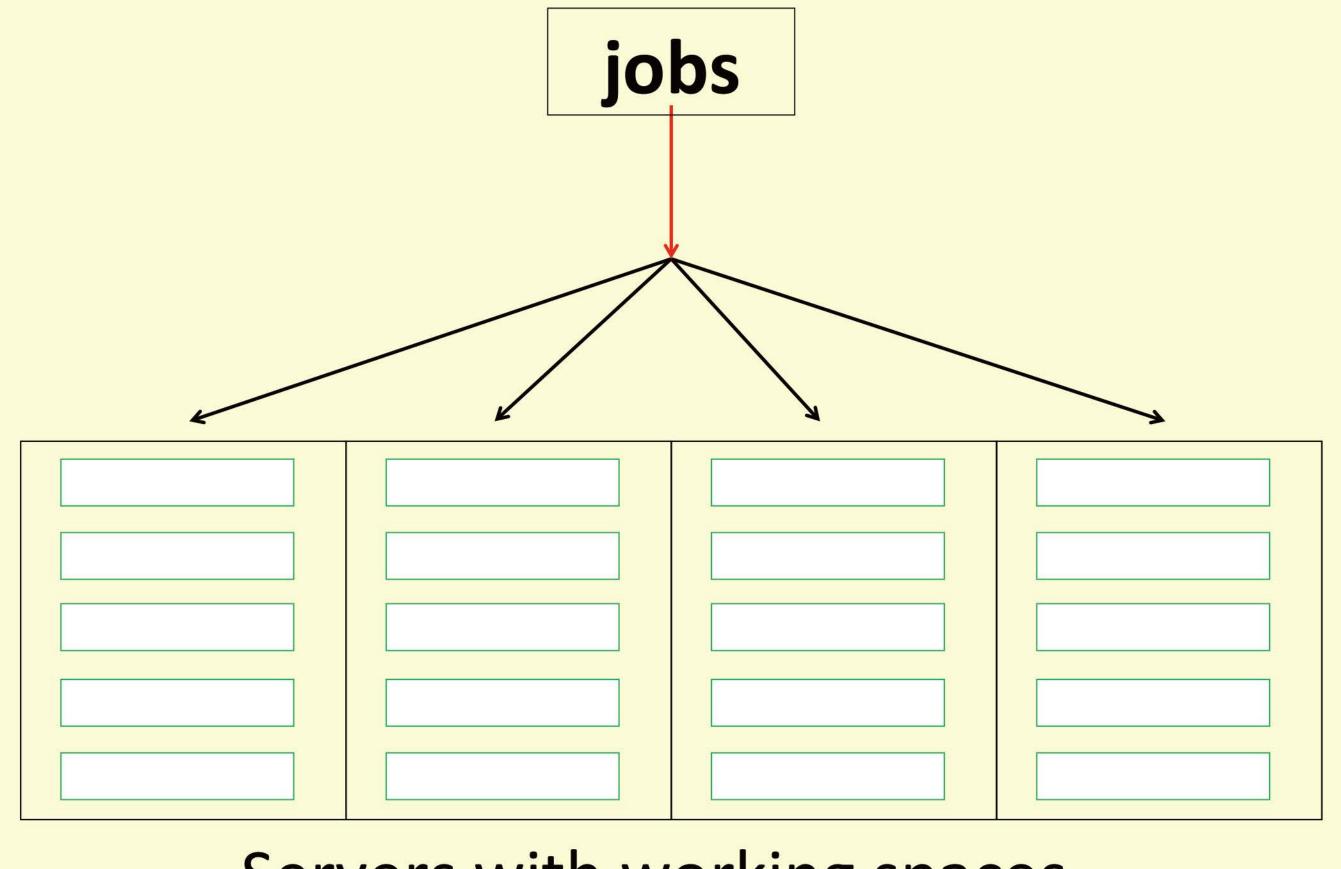
## Objective / Background

- ·Data centres handle vast amount of data
- ·Different ways to assign jobs, different energy efficiency
- ·How to assign jobs with better energy efficiency?



## Methodology

- •Run C++ simulation programmes
- ·Compare the ratio of system throughput and energy consumption
- ·Evaluate the efficiency of the assignment method
- ·Slower-server-first / load balancing



Servers with working spaces

(Order of job assignment)

A	В	C	D	Ε
1	2	3	16	21
4	5	6	17	22
7	8	9	18	23
10	11	12	19	24
13	14	15	20	25

Set a n\* value as boundary

## Results

- •A mixed policy performs the best with ~30-70% improvement
- ·Heterogeneity and service rate of servers affect the performance results

