|  |  |  |
| --- | --- | --- |
| **ТЕХНИЧЕСКИ УНИВЕРСИТЕТ – СОФИЯ** | | |
| **Дисциплина: Високопроизводителни компютърни системи** | | |
| **Студент: Пламена Димитрова** | | **Фак. №: 121221194** |
| **Специалност: КСИ** | **Група: 42Б** | **Дата: 28.03.2024г.** |
| **Ръководител: д-р В.Христов** | | **Оценка:** |

A white and purple background with black text

Description automatically generated**ТЕМА: Изследване на синхронни паралелни компютърни архитектури(ПКА)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| m | 1 | 2 | 5 | 10 | 15 | 20 | 25 | 30 |
| N(r=0.5) | 1 | 1.33 | 1.67 | 1.81818182 | 1.87500001 | 1.9047619 | 1.923077 | 1.935484 |
| N(r=0.6) | 1 | 1.43 | 1.92307692 | 2.17391304 | 2.27272727 | 2.3255814 | 2.358491 | 2.380952 |
| N(r=0.7) | 1 | 1.53846154 | 2.27272727 | 2.7027027 | 2.88461536 | 2.985075 | 3.04878 | 3.092784 |

A math problem with numbers and equations

Description automatically generated with medium confidence

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| R | 0.2 | 0.4 | 0.6 | 0.7 | 0.8 | 0.9 | 1 |
| N(m=5) | 1.19047619 | 1.47058823 | 1.9230769 | 2.272727 | 2.7777777 | 3.571428 | 5 |
| N(m=10) | 1.219512195 | 1.5625 | 2.17391304 | 2.70270270 | 3.5714285 | 5.263157 | 10 |
| N(m=15) | 1.22 | 1.59 | 2.27 | 2.88 | 3.94 | 6.25 | 15 |

A screenshot of a diagram

Description automatically generated

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| M | 2 | 4 | 6 | 8 | 10 | 20 |
| N >= | 6 | 4 | 4 | 4 | 4 | 4 |

A screenshot of a computer

Description automatically generated

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| C | S | A | N |  |  |
| C | S | A | N |  |  |
| C | S | A | N |  |  |
| C | S | A | N |  |  |
|  | C | S | A | N |  |
|  | C | S | A | N |  |
|  | C | S | A | N |  |
|  | C | S | A | N |  |
|  |  | C | S | A | N |
|  |  | C | S | A | N |
|  |  | C | S | A | N |
|  |  | C | S | A | N |

α = 0.0025

A screenshot of a diagram

Description automatically generated

Характеристики: гранулярност(G), управление(C), топология(T).

A blue square with red text

Description automatically generated

16\*16 = 256

A diagram of a number with black lines

Description automatically generated with medium confidence

Брой размествания – 4

Log2(16) = 4

A diagram of a diagram

Description automatically generated

M0

A screenshot of a computer

Description automatically generated

P2 ->M6 = 110

A diagram of a graph

Description automatically generatedP7-> M4 = 100

Паралелната връзка е невъзможна, защото се достъпва един и същи блок в различни посоки.

A screenshot of a computer

Description automatically generatedA purple sign with black text

Description automatically generatedA blue and white rectangular box with black text

Description automatically generatedA purple background with black text

Description automatically generatedA screenshot of a math problem

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