1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | I0 | I1 | I2 | I3 | I4 |
| U0 | 5 | 4 | ? | 2 | 2 |
| U1 | 5 | ? | 4 | 2 | 0 |
| U2 | 2 | ? | 1 | 3 | 4 |
| U3 | 0 | 0 | ? | 4 | ? |
| U4 | 1 | ? | ? | 4 | ? |
| U5 | ? | 2 | 1 | ? | ? |
| U6 | ? | ? | 1 | 4 | 5 |

2.6 2 1.75 3.17 2.75

2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | I0 | I1 | I2 | I3 | I4 |
| U0 | 2.4 | 2 | 0 | -1.17 | -0.75 |
| U1 | 2.4 | 0 | 2.25 | -1.17 | -2.75 |
| U2 | -0.6 | 0 | -0.75 | -0.17 | 1.25 |
| U3 | -2.6 | -2 | 0 | 0.83 | 0 |
| U4 | -1.6 | 0 | 0 | 0.83 | 0 |
| U5 | 0 | 0 | -0.75 | 0 | 0 |
| U6 | 0 | 0 | -0.75 | 0.83 | 2.25 |

3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | I0 | I1 | I2 | I3 | I4 |
| I0 | 1 | 0.77 | 0.49 | -0.89 | -0.45 |
| I1 | 0.77 | 1 | 0 | -0.64 | -0.14 |
| I2 | 0.49 | 0 | 1 | -0.55 | -0.88 |
| I3 | -0.89 | -0.64 | -0.55 | 1 | 0.67 |
| I4 | -0.45 | -0.14 | -0.88 | 0.67 | 1 |

Xét u0 và i2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| U0 | 2.4 | | 2 | 0 | | -1.17 | | -0.75 |
| I2 | | 0.49 | | | 0 | | 1 | | | -0.55 | -0.88 |

Sinh viên u0 có các điểm {i0,i1,i3;i4}

Độ tương quan: {0.49,0;-0.55;-0.88}

Sinh môn gần nhất i0,i1

Điểm đã chuẩn hóa:2.4,2

Yu0,i2=(0.49\*2.4+0\*2)/(0.49+0)=2.4

4/

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | I0 | I1 | I2 | I3 | I4 |
| U0 | 2.4 | 2 | 2.4 | -1.17 | -0.75 |
| U1 | 2.4 | 2.4 | 2.25 | -1.17 | -2.75 |
| U2 | -0.6 | -0,6 | -0.75 | -0.17 | 1.25 |
| U3 | -2.6 | -2 | -2.6 | 0.83 | 1.03 |
| U4 | -1.6 | 1.25 | -1,19 | 0.83 | 1.14 |
| U5 | -0.75 | 0 | -0.75 | 0.75 | 0.75 |
| U6 | -1.47 | 2.25 | -0.75 | 0.83 | 2.25 |

5/ Full Matrix

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | I0 | I1 | I2 | I3 | I4 |
| U0 | 5 | 4 | 4.15 | 2 | 2 |
| U1 | 5 | 4.4 | 4 | 2 | 2 |
| U2 | 2 | 1.4 | 1 | 3 | 4 |
| U3 | 0 | 0 | -0.85 | 4 | 3.78 |
| U4 | 1 | 3.25 | 0.56 | 4 | 3.89 |
| U5 | 1,85 | 2 | 1 | 3.92 | 3.5 |
| U6 | 1,13 | 4.25 | 1 | 4 | 5 |