|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | 4 | 6 | 8 | 10 | 9 | 7 | 5 | 3 | 1 |

*sinal de entrada* *s*[ ] :

*janela J0*

***L*** : 4;

*janela J1*

***V*** : 50%;

*janela J2*

*janela J3*

*cálculo de energia:*

7² + 5² + 3² + 1² = 84

10² + 9² + 7² + 5² = 255

6² + 8² + 10² + 9² = 281

2² + 4² + 6² + 8² = 120

Soma das energias: 120 + 281 + 255 + 84 = 740

*janela J3* 84/740= 0.1135

*janela J2* 255/740= 0.3446

*janela J1* 281/740= 0.3797

*janela J0* 120/740= 0.1622

*normalização:*

*vetor de características:*

***f [ ]: {0.625 , 0.875 , 1 , 1}***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

*sinal de entrada* *s*[ ] :

0² + 1² + 2² + 3² + 4²

(0² + 1² + 2² + 3² + 4²) + (5² + 6² + 7² + 8² + 9²)

)

*janela J1*

= 0.1053

*janela J0*

= 0.8947

5² + 6² + 7² + 8² + 9²

(0² + 1² + 2² + 3² + 4²) + (5² + 6² + 7² + 8² + 9²)

)

*2º sub-vetor* ***Q***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

*sinal de entrada* *s*[ ] :

0² + 1² + 2²

(0² + 1² + 2²) + (3² + 4² + 5²) + (6² + 7² + 8²)

)

*janela J1*

*janela J0*

= 0.0245

*janela J2*

= 0.2451

3² + 4² + 5²

(0² + 1² + 2²) + (3² + 4² + 5²) + (6² + 7² + 8²)

)

6² + 7² + 8²

(0² + 1² + 2²) + (3² + 4² + 5²) + (6² + 7² + 8²)

)

= 0.7304

*3º sub-vetor* ***Q***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

*sinal de entrada* *s*[ ] :

= 0.0035

0² + 1²

(0² + 1²) + (2² + 3²) + (4² + 5²) + (6² + 7²) + (8² + 9²)

)

= 0.0456

2² + 3²

(0² + 1²) + (2² + 3²) + (4² + 5²) + (6² + 7²) + (8² + 9²)

)

*janela J1*

*janela J0*

*janela J2*

4² + 5²

(0² + 1²) + (2² + 3²) + (4² + 5²) + (6² + 7²) + (8² + 9²)

)

*janela J3*

= 0.1439

= 0.2982

6² + 7²

(0² + 1²) + (2² + 3²) + (4² + 5²) + (6² + 7²) + (8² + 9²)

)

*janela J4*

= 0.5088

8² + 9²

(0² + 1²) + (2² + 3²) + (4² + 5²) + (6² + 7²) + (8² + 9²)

)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 1 | 2 | 7 | 10 | 9 | 8 | 20 |

*sinal de entrada* *s*[ ] :

*janela J0 cobre 20% de 700*

***C*** = 20%

*janela J1 cobre 40% de 700*

***energia do sinal completo*** = 700

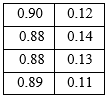
*janela J2 cobre 60% de 700*

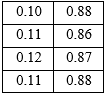
*janela J3 cobre 80% de 700*

***f [ ]: {0.625 , 0.875 , 1 , 1}***

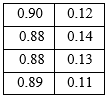
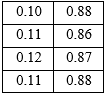
*vetor de características:*

*Vetores de Características Vetores de Características Vetores de Características*

 *Classe C0 Classe C1 Classe C2*

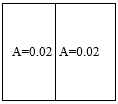


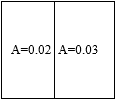
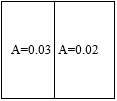
*---------------------------------------------****passo a****---------------------------------------------------*



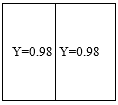
*---------------------------------------------****passo a****---------------------------------------------------*

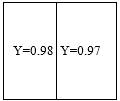
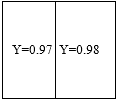
*---------------------------------------------****passo a****---------------------------------------------------*

*---------------------------------------------****passo b****---------------------------------------------------*



*---------------------------------------------****passo c****---------------------------------------------------*

*svC0 svC1 svC2*



*---------------------------------------------****passo d****---------------------------------------------------*

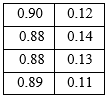
*média(svC0) = 0.975 média(svC1) = 0.975 média(svC2) = 0.98*

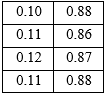
*---------------------------------------------****passo e****---------------------------------------------------*

***α*** *= min [0.975 , 0975 , 0.98]*

***α = 0.975***

*Vetores de Características Vetores de Características Vetores de Características*

 *Classe C0 Classe C1 Classe C2*



*---------------------------------****passo “a” para obtenção de R****------------------------------------*

*vetor de maiores C0 vetor de maiores C1 vetor de maiores C1*



*vetor de menores C0 vetor de menores C1 vetor de menores C1*

*---------------------------------****passo “b” para obtenção de R****------------------------------------*

*Analisando a posição de qualquer uma das duas características acima e comparando com o intervalo da mesma característica em outras cases podemos obter que o não há sobreposição de intervalos, ou seja,* ***R = 0.***

*---------------------------------------------****cálculo de F****----------------------------------------------*

***F = N \* (N - 1) \* X \* T***. ***F = 3 \* (3 - 1) \* 4 \* 2***

***F = 48***

*---------------------------------------------****cálculo de β****----------------------------------------------*

***β = β =***

***β = 0***

Ambiguidade

Falsidade

Verdade

***G1 = α – β***

-1

1

-1

Indefinição