COTE HILL SIL

12 . Fepen ("c"

(67 :d) stug

"tuntuo

let us consider a sample dataset have one input (xis) and one output (4:9) and number of sample 2. Develop a sing'simple linear regression model using RMS peop optimizer.

Sample (1)	XIa	419
1 1	0.2	3-4
2	0.4	3-8
les elib goldat	0-6	4-2
1 3 4 3 3 6	8-0	4.6

step 1:- [72,4], n=0.1, epoches = 2, m=1, c=-1, 8=0-9, £m=£c=0,

step 3: - 
$$gm = -(3-4-(1)(0.2)+1)(0.2)=-0-8.4$$

$$g_{c} = -(3.4 - (1)(0.2) + 1) = -4.2$$
:-  $Em = (0.9)(0) + (10.9)(0.84)^{2} = 0.07$ 

Step5 :- 
$$Em = (0.9)(0) + (10.9)(-4.2)^2 = 1.764$$
  
 $Ec = (0.9)(0) + (1-0.9)(-4.2)^2 = 1.764$ 

Step-6: 
$$\Delta M = \frac{-0.1}{\sqrt{0.07 + 10^3}} \times -0.84 = 0.31$$

= 0-31 mali

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Step-7: m= m+0m = 1+0.31 =1.31
C=0+AC =-1+0.31 =- 0-69
 step-8 : sample = cample+1
               = 1+1=2
 step9: if (sample > ns) goto step-10
             272
         ele
           goto step-4
 step4: gm = - (3-8 - (1-31)(0-4)+0-69)0-4=-1-5
      90=-(3-8-(1-31)(0-4)+0-69)=-3-9
 Step5: Em = (0.97(0.07) + (0.1) (-1.5)2 = 0.28
       Ec = (09) (176) + (0.1) (-3.9)2 = 3.1
 step-6:
        Dm = -0.1 x -1.5 = 0.28
              VD-28+108
        DC = -0.1 X-3.9 = 0.22
             53-1+60-8
Step-7: m= m+0m = 1.31 +0.28 = 1.59
        C = C+OC = -0.69 +0.22 = -0.47
step-8: Sample = sample+1
              = 2+1=3
step9: 71 ( sample > ns) goto step-10
              372
        else
          Step-4
Step 10: ite = ite+1
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= 1+1=2

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step-11: if (ite > epoches)
             goto step-12
          else goto step-3
 Step-3: sample=1
 skp4: 9m = - (3.4-6-59)(0.2)+0.47)(0.2)=-0.7
         90 = - (3.4 - (1.59) (0.2) + 0.47) = -3.5
 Step5: Em = (0.9)(0.28) +(0.1)(-0.7)2=0.3
         Ec = (0.9)(3.1) + (0.1)(-3.5)2 = 4.0
 Step 6: 0m = -0.1
                        * -0.1 = 0.12
               10.3+10-8
         \Delta c = -0.1 \times -3.5 = 0.17
 Step 7: m=m+0m = 1.59 +0.12 = 1.71
          C= c+0c = +0-47+0-17=-0.3
 step8: sample = sample+1
                 = 1+1=2
 step 9: - 91 (sample >ns)
                 2>2 goto step-10
            goto step-4
Step4: - 9m = - (3.8 - (1.71) (0.4) + 0.3) x0.4 = -1.4
        90 = - (3.8 - (1.71) (0.4) +0.3) = -3.6
step-5: Em=(0.9)(0.3)+(0.1)(-1.4)2=0.46
               10.97 (0.) + (0.17 (-3.6) = 4=89
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step-6: 0m = -0.1 x -1.4 = 0.2 10-46+16 8 bas 1000 thing at 1012 DC= -0.1 x -3.6=0-16 14.89+10-8 A sibh al abritt skp-7: m= m+0m = 1-71 +0.2 = 1-91 C = C+OC = -0.3+0.16 = -0.14 Sample = sample +1 = 2+1=3/12 ( 00000 ) 0000 = 12 il (sample > ns) la sondmen solas ") House 372 goto step-16 else goto step-4 skpio: The= ita+1 = 2+1 = 3 step-11: 7/ (ite > epoches) 2(11-12) w bog 372 goto step-12 else goto skp-3 m=1-91 step-12 = c= -0-14 The stepper ("celusers fed show the bull weekles") myster &