```
Initial Parameters...
R(load) = 50 ohms
r = 1.00
w = 0.90

---------
INITIAL Particle 1 ::   pos(duty)=   0.90000000    fitness(Output Power)=   5.33009620
INITIAL Particle 2 ::   pos(duty)=   0.30000000    fitness(Output Power)=  65.36757365
INITIAL Particle 3 ::   pos(duty)=   0.65000000    fitness(Output Power)=  65.38596193

================================================
++++++++++++++Start of Iterations++++++++++++++
================================================

================================================
++++++++++++ Irrediance = 600 W/sqm ++++++++++++
================================================
Iteration No: 1
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.1250
    0.1750
         0

Particle 1 ::   pos(duty)=   0.77500000    fitness(Output Power)=  27.04251651
Particle 2 ::   pos(duty)=   0.47500000    fitness(Output Power)=  98.72701508
Particle 3 ::   pos(duty)=   0.65000000    fitness(Output Power)=  65.38596193


Updated best Fitness Position =   0.47500000


--------
Iteration No: 2
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.2625
    0.1575
   -0.0875

Particle 1 ::   pos(duty)=   0.51250000    fitness(Output Power)= 103.23493949
Particle 2 ::   pos(duty)=   0.63250000    fitness(Output Power)=  72.00284430
Particle 3 ::   pos(duty)=   0.56250000    fitness(Output Power)=  97.67751033


Updated best Fitness Position =   0.51250000


--------
Iteration No: 3
c1 =   0.50000000    c2 =   0.50000000
velocity =
```

```
   -0.2363
    0.0030
   -0.1038

Particle 1 ::   pos(duty)=   0.27625000    fitness(Output Power)=  61.66897623
Particle 2 ::   pos(duty)=   0.63550000    fitness(Output Power)=  70.83832713
Particle 3 ::   pos(duty)=   0.45875000    fitness(Output Power)=  95.74745190


Updated best Fitness Position =   0.51250000


--------
Iteration No: 4
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0236
   -0.1391
   -0.0146

Particle 1 ::   pos(duty)=   0.29987500    fitness(Output Power)=  65.36757365
Particle 2 ::   pos(duty)=   0.49645000    fitness(Output Power)= 101.89028226
Particle 3 ::   pos(duty)=   0.44412500    fitness(Output Power)=  92.83482983


Updated best Fitness Position =   0.51250000


--------
Iteration No: 5
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.2339
   -0.1171
    0.0802

Particle 1 ::   pos(duty)=   0.53376250    fitness(Output Power)= 102.93495900
Particle 2 ::   pos(duty)=   0.37933000    fitness(Output Power)=  79.54107699
Particle 3 ::   pos(duty)=   0.52433750    fitness(Output Power)= 103.41651331


Updated best Fitness Position =   0.52433750


--------
Iteration No: 6
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.1952
    0.0257
    0.0722
```

```
Particle 1 ::   pos(duty)=   0.72891750    fitness(Output Power)=  39.27070461
Particle 2 ::   pos(duty)=   0.40498575    fitness(Output Power)=  84.73363260
Particle 3 ::   pos(duty)=   0.59652875    fitness(Output Power)=  85.97968770


Updated best Fitness Position =   0.52433750


--------
Iteration No: 7
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0349
    0.1285
   -0.0072

Particle 1 ::   pos(duty)=   0.69405825    fitness(Output Power)=  50.02342020
Particle 2 ::   pos(duty)=   0.53348392    fitness(Output Power)= 102.96379859
Particle 3 ::   pos(duty)=   0.58930963    fitness(Output Power)=  88.72342642


Updated best Fitness Position =   0.52433750


--------
Iteration No: 8
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.2070
    0.1111
   -0.0715

Particle 1 ::   pos(duty)=   0.48704543    fitness(Output Power)= 100.65295472
Particle 2 ::   pos(duty)=   0.64455907    fitness(Output Power)=  67.40102716
Particle 3 ::   pos(duty)=   0.51784029    fitness(Output Power)= 103.41483519


Updated best Fitness Position =   0.52433750


--------
Iteration No: 9
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.1549
   -0.0157
   -0.0578

Particle 1 ::   pos(duty)=   0.33210721    fitness(Output Power)=  70.78065857
Particle 2 ::   pos(duty)=   0.62887834    fitness(Output Power)=  73.39142003
Particle 3 ::   pos(duty)=   0.46001510    fitness(Output Power)=  95.99269395
```

```
Updated best Fitness Position =   0.52433750


--------
Iteration No: 10
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0469
   -0.1141
    0.0123

Particle 1 ::   pos(duty)=   0.37897435    fitness(Output Power)=  79.40235570
Particle 2 ::   pos(duty)=   0.51479806    fitness(Output Power)= 103.33221273
Particle 3 ::   pos(duty)=   0.47229483    fitness(Output Power)=  98.26319490


Updated best Fitness Position =   0.52433750


--------
Iteration No: 11
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.1816
   -0.0979
    0.0631

Particle 1 ::   pos(duty)=   0.56059918    fitness(Output Power)=  98.20806389
Particle 2 ::   pos(duty)=   0.41689552    fitness(Output Power)=  87.14997577
Particle 3 ::   pos(duty)=   0.53538926    fitness(Output Power)= 102.79078286


Updated best Fitness Position =   0.52433750


--------
Iteration No: 12
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.1213
    0.0146
    0.0457

Particle 1 ::   pos(duty)=   0.68188110    fitness(Output Power)=  54.07346412
Particle 2 ::   pos(duty)=   0.43145550    fitness(Output Power)=  90.25204510
Particle 3 ::   pos(duty)=   0.58112249    fitness(Output Power)=  91.71011206


Updated best Fitness Position =   0.52433750
```

```
--------
Iteration No: 13
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0543
    0.1012
   -0.0156

Particle 1 ::   pos(duty)=   0.62757247    fitness(Output Power)=  73.87512570
Particle 2 ::   pos(duty)=   0.53267176    fitness(Output Power)= 103.02818922
Particle 3 ::   pos(duty)=   0.56549741    fitness(Output Power)=  96.82982849


Updated best Fitness Position =   0.52433750


--------
Iteration No: 14
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.1580
    0.0780
   -0.0552

Particle 1 ::   pos(duty)=   0.46954099    fitness(Output Power)=  97.77095123
Particle 2 ::   pos(duty)=   0.61066241    fitness(Output Power)=  80.49988166
Particle 3 ::   pos(duty)=   0.51027493    fitness(Output Power)= 103.11523230


Updated best Fitness Position =   0.52433750


--------
Iteration No: 15
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0934
   -0.0209
   -0.0356

Particle 1 ::   pos(duty)=   0.37619042    fitness(Output Power)=  78.98255824
Particle 2 ::   pos(duty)=   0.58975937    fitness(Output Power)=  88.57277762
Particle 3 ::   pos(duty)=   0.47463727    fitness(Output Power)=  98.68188389


Updated best Fitness Position =   0.52433750


--------
Iteration No: 16
c1 =   0.50000000    c2 =   0.50000000
velocity =
```

```
    0.0582
   -0.0890
    0.0176

Particle 1 ::   pos(duty)=   0.43440323    fitness(Output Power)=  90.86994010
Particle 2 ::   pos(duty)=   0.50075504    fitness(Output Power)= 102.34626398
Particle 3 ::   pos(duty)=   0.49226361    fitness(Output Power)= 101.36638466


Updated best Fitness Position =   0.52433750


--------
Iteration No: 17
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.1364
   -0.0613
    0.0479

Particle 1 ::   pos(duty)=   0.57081029    fitness(Output Power)=  95.20854636
Particle 2 ::   pos(duty)=   0.43946388    fitness(Output Power)=  91.88145864
Particle 3 ::   pos(duty)=   0.54020121    fitness(Output Power)= 102.25584732


Updated best Fitness Position =   0.52433750


--------
Iteration No: 18
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0704
    0.0249
    0.0273

Particle 1 ::   pos(duty)=   0.64118510    fitness(Output Power)=  68.66698399
Particle 2 ::   pos(duty)=   0.46440574    fitness(Output Power)=  96.81001831
Particle 3 ::   pos(duty)=   0.56748134    fitness(Output Power)=  96.23900563


Updated best Fitness Position =   0.52433750


--------
Iteration No: 19
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0594
    0.0776
   -0.0186
```

```
Particle 1 ::   pos(duty)=   0.58175608    fitness(Output Power)=  91.50701392
Particle 2 ::   pos(duty)=   0.54201545    fitness(Output Power)= 102.02424910
Particle 3 ::   pos(duty)=   0.54888962    fitness(Output Power)= 100.87020798


Updated best Fitness Position =   0.52433750


--------
Iteration No: 20
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.1168
    0.0474
   -0.0413

Particle 1 ::   pos(duty)=   0.46493263    fitness(Output Power)=  96.92169028
Particle 2 ::   pos(duty)=   0.58941652    fitness(Output Power)=  88.69331525
Particle 3 ::   pos(duty)=   0.50760495    fitness(Output Power)= 102.94237784


Updated best Fitness Position =   0.52433750


--------
Initial Parameters...
R(load) = 50 ohms
r = 1.00
w = 0.90

---------
INITIAL Particle 1 ::   pos(duty)=   0.46493263    fitness(Output Power)= 111.12281916
INITIAL Particle 2 ::   pos(duty)=   0.58941652    fitness(Output Power)= 141.01932045
INITIAL Particle 3 ::   pos(duty)=   0.50760495    fitness(Output Power)= 124.84528517

================================================
++++++++++++++Start of Iterations++++++++++++++
================================================

================================================
++++++++++++ Irrediance = 800 W/sqm ++++++++++++
================================================
Iteration No: 1
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0517
   -0.0272
   -0.0204

Particle 1 ::   pos(duty)=   0.41327765    fitness(Output Power)=  95.89864102
Particle 2 ::   pos(duty)=   0.56222874    fitness(Output Power)= 139.80337610
Particle 3 ::   pos(duty)=   0.48718130    fitness(Output Power)= 118.22183608
```

```
Updated best Fitness Position =   0.56222874


--------
Iteration No: 2
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0776
   -0.0245
    0.0191

Particle 1 ::   pos(duty)=   0.49087488    fitness(Output Power)= 119.36788705
Particle 2 ::   pos(duty)=   0.53775974    fitness(Output Power)= 134.16822859
Particle 3 ::   pos(duty)=   0.50632373    fitness(Output Power)= 124.49845248


Updated best Fitness Position =   0.56222874


--------
Iteration No: 3
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.1055
    0.0024
    0.0452

Particle 1 ::   pos(duty)=   0.59638933    fitness(Output Power)= 140.01931518
Particle 2 ::   pos(duty)=   0.54020664    fitness(Output Power)= 134.86905095
Particle 3 ::   pos(duty)=   0.55150443    fitness(Output Power)= 137.68930632


Updated best Fitness Position =   0.59638933


--------
Iteration No: 4
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0950
    0.0413
    0.0631

Particle 1 ::   pos(duty)=   0.69135232    fitness(Output Power)=  90.40819459
Particle 2 ::   pos(duty)=   0.58151124    fitness(Output Power)= 141.44290944
Particle 3 ::   pos(duty)=   0.61460950    fitness(Output Power)= 134.43050250


Updated best Fitness Position =   0.58151124
```

```
--------
Iteration No: 5
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0169
    0.0372
    0.0087

Particle 1 ::   pos(duty)=   0.67441698    fitness(Output Power)= 100.43799581
Particle 2 ::   pos(duty)=   0.61868538    fitness(Output Power)= 132.65955251
Particle 3 ::   pos(duty)=   0.62330240    fitness(Output Power)= 130.46530444


Updated best Fitness Position =   0.58151124


--------
Iteration No: 6
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.1007
   -0.0037
   -0.0490

Particle 1 ::   pos(duty)=   0.57370848    fitness(Output Power)= 141.18322797
Particle 2 ::   pos(duty)=   0.61496797    fitness(Output Power)= 134.30328475
Particle 3 ::   pos(duty)=   0.57433145    fitness(Output Power)= 141.22900922


Updated best Fitness Position =   0.58151124


--------
Iteration No: 7
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0867
   -0.0368
   -0.0405

Particle 1 ::   pos(duty)=   0.48697221    fitness(Output Power)= 118.22183608
Particle 2 ::   pos(duty)=   0.57816557    fitness(Output Power)= 141.40931710
Particle 3 ::   pos(duty)=   0.53384749    fitness(Output Power)= 133.06502618


Updated best Fitness Position =   0.58151124


--------
Iteration No: 8
c1 =   0.50000000    c2 =   0.50000000
```

```
velocity =

    0.0126
   -0.0298
    0.0076

Particle 1 ::   pos(duty)=   0.49954722    fitness(Output Power)= 122.30909621
Particle 2 ::   pos(duty)=   0.54838909    fitness(Output Power)= 136.95506582
Particle 3 ::   pos(duty)=   0.54148578    fitness(Output Power)= 135.17265560


Updated best Fitness Position =   0.58151124


--------
Iteration No: 9
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0894
    0.0063
    0.0433

Particle 1 ::   pos(duty)=   0.58892737    fitness(Output Power)= 141.07031064
Particle 2 ::   pos(duty)=   0.55471241    fitness(Output Power)= 138.38338869
Particle 3 ::   pos(duty)=   0.58479581    fitness(Output Power)= 141.35624479


Updated best Fitness Position =   0.58151124


--------
Iteration No: 10
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0691
    0.0325
    0.0373

Particle 1 ::   pos(duty)=   0.65805200    fitness(Output Power)= 110.39577533
Particle 2 ::   pos(duty)=   0.58720223    fitness(Output Power)= 141.21313154
Particle 3 ::   pos(duty)=   0.62213256    fitness(Output Power)= 131.03414504


Updated best Fitness Position =   0.58151124


--------
Iteration No: 11
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0182
    0.0235
```

```
   -0.0054

Particle 1 ::   pos(duty)=   0.63982203    fitness(Output Power)= 121.42065458
Particle 2 ::   pos(duty)=   0.61075209    fitness(Output Power)= 135.96021224
Particle 3 ::   pos(duty)=   0.61675660    fitness(Output Power)= 133.52625386


Updated best Fitness Position =   0.58151124


--------
Iteration No: 12
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0786
   -0.0080
   -0.0384

Particle 1 ::   pos(duty)=   0.56120289    fitness(Output Power)= 139.61155519
Particle 2 ::   pos(duty)=   0.60270611    fitness(Output Power)= 138.54399309
Particle 3 ::   pos(duty)=   0.57831517    fitness(Output Power)= 141.41265632


Updated best Fitness Position =   0.58151124


--------
Iteration No: 13
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0544
   -0.0284
   -0.0330

Particle 1 ::   pos(duty)=   0.50685264    fitness(Output Power)= 124.61462406
Particle 2 ::   pos(duty)=   0.57426987    fitness(Output Power)= 141.22022570
Particle 3 ::   pos(duty)=   0.54531592    fitness(Output Power)= 136.19127215


Updated best Fitness Position =   0.58151124


--------
Iteration No: 14
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0218
   -0.0184
    0.0049

Particle 1 ::   pos(duty)=   0.52869463    fitness(Output Power)= 131.53840074
Particle 2 ::   pos(duty)=   0.55591862    fitness(Output Power)= 138.64460092
```

```
Particle 3 ::   pos(duty)=   0.55021388    fitness(Output Power)= 137.37801250


Updated best Fitness Position =   0.58151124


--------
Iteration No: 15
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0686
    0.0091
    0.0341

Particle 1 ::   pos(duty)=   0.59726766    fitness(Output Power)= 139.83699709
Particle 2 ::   pos(duty)=   0.56499512    fitness(Output Power)= 140.21925623
Particle 3 ::   pos(duty)=   0.58432137    fitness(Output Power)= 141.37530496


Updated best Fitness Position =   0.58151124


--------
Iteration No: 16
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0421
    0.0247
    0.0263

Particle 1 ::   pos(duty)=   0.63932558    fitness(Output Power)= 121.70210372
Particle 2 ::   pos(duty)=   0.58968010    fitness(Output Power)= 140.99809926
Particle 3 ::   pos(duty)=   0.61060995    fitness(Output Power)= 136.01891047


Updated best Fitness Position =   0.58151124


--------
Iteration No: 17
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0239
    0.0140
   -0.0070

Particle 1 ::   pos(duty)=   0.61546199    fitness(Output Power)= 134.07904950
Particle 2 ::   pos(duty)=   0.60372772    fitness(Output Power)= 138.28079849
Particle 3 ::   pos(duty)=   0.60357292    fitness(Output Power)= 138.30507346


Updated best Fitness Position =   0.58151124
```

```
--------
Iteration No: 18
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0593
   -0.0096
   -0.0300

Particle 1 ::   pos(duty)=   0.55613263    fitness(Output Power)= 138.68078011
Particle 2 ::   pos(duty)=   0.59415410    fitness(Output Power)= 140.40328365
Particle 3 ::   pos(duty)=   0.57357988    fitness(Output Power)= 141.17350934


Updated best Fitness Position =   0.58151124


--------
Iteration No: 19
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0319
   -0.0213
   -0.0207

Particle 1 ::   pos(duty)=   0.52421343    fitness(Output Power)= 130.19159984
Particle 2 ::   pos(duty)=   0.57289499    fitness(Output Power)= 141.12206773
Particle 3 ::   pos(duty)=   0.55291947    fitness(Output Power)= 137.98555438


Updated best Fitness Position =   0.58151124


--------
Iteration No: 20
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0247
   -0.0105
    0.0084

Particle 1 ::   pos(duty)=   0.54888259    fitness(Output Power)= 137.05129845
Particle 2 ::   pos(duty)=   0.56237804    fitness(Output Power)= 139.82978086
Particle 3 ::   pos(duty)=   0.56131883    fitness(Output Power)= 139.63971301


Updated best Fitness Position =   0.58151124


--------
Initial Parameters...
```

```
R(load) = 50 ohms
r = 1.00
w = 0.90

---------
INITIAL Particle 1 ::   pos(duty)=   0.54888259    fitness(Output Power)= 155.70731797
INITIAL Particle 2 ::   pos(duty)=   0.56237804    fitness(Output Power)= 161.84544094
INITIAL Particle 3 ::   pos(duty)=   0.56131883    fitness(Output Power)= 161.44740104

==============================================
++++++++++++++Start of Iterations++++++++++++++
==============================================

==============================================
++++++++++++ Irrediance = 1000 W/sqm ++++++++++++
==============================================
Iteration No: 1
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0509
    0.0097
    0.0262

Particle 1 ::   pos(duty)=   0.59981210    fitness(Output Power)= 176.68027529
Particle 2 ::   pos(duty)=   0.57204599    fitness(Output Power)= 166.17936770
Particle 3 ::   pos(duty)=   0.58747263    fitness(Output Power)= 172.54202137


Updated best Fitness Position =   0.59981210


--------
Iteration No: 2
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0458
    0.0226
    0.0297

Particle 1 ::   pos(duty)=   0.64564866    fitness(Output Power)= 174.78473449
Particle 2 ::   pos(duty)=   0.59463020    fitness(Output Power)= 175.03086047
Particle 3 ::   pos(duty)=   0.61718079    fitness(Output Power)= 180.03004655


Updated best Fitness Position =   0.61718079


--------
Iteration No: 3
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0041
```

```
    0.0316
    0.0267

Particle 1 ::   pos(duty)=   0.64974935    fitness(Output Power)= 172.73550133
Particle 2 ::   pos(duty)=   0.62623128    fitness(Output Power)= 180.06071710
Particle 3 ::   pos(duty)=   0.64391812    fitness(Output Power)= 175.57928206


Updated best Fitness Position =   0.62623128


--------
Iteration No: 4
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0330
    0.0284
    0.0019

Particle 1 ::   pos(duty)=   0.61671231    fitness(Output Power)= 179.98211972
Particle 2 ::   pos(duty)=   0.65467225    fitness(Output Power)= 169.83233373
Particle 3 ::   pos(duty)=   0.64576964    fitness(Output Power)= 174.75069171


Updated best Fitness Position =   0.62623128


--------
Iteration No: 5
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0250
   -0.0028
   -0.0224

Particle 1 ::   pos(duty)=   0.59173846    fitness(Output Power)= 174.05706932
Particle 2 ::   pos(duty)=   0.65182815    fitness(Output Power)= 171.53701154
Particle 3 ::   pos(duty)=   0.62337239    fitness(Output Power)= 180.20510769


Updated best Fitness Position =   0.62337239


--------
Iteration No: 6
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0058
   -0.0296
   -0.0202

Particle 1 ::   pos(duty)=   0.59756588    fitness(Output Power)= 176.00565095
```

```
Particle 2 ::   pos(duty)=   0.62224215    fitness(Output Power)= 180.21971674
Particle 3 ::   pos(duty)=   0.60321487    fitness(Output Power)= 177.60173404


Updated best Fitness Position =   0.62224215


--------
Iteration No: 7
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0272
   -0.0266
    0.0015

Particle 1 ::   pos(duty)=   0.62472191    fitness(Output Power)= 180.15381551
Particle 2 ::   pos(duty)=   0.59561474    fitness(Output Power)= 175.36962983
Particle 3 ::   pos(duty)=   0.60466550    fitness(Output Power)= 177.96749201


Updated best Fitness Position =   0.62224215


--------
Iteration No: 8
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0232
    0.0027
    0.0194

Particle 1 ::   pos(duty)=   0.64792246    fitness(Output Power)= 173.69674907
Particle 2 ::   pos(duty)=   0.59827748    fitness(Output Power)= 176.20566917
Particle 3 ::   pos(duty)=   0.62411284    fitness(Output Power)= 180.18011101


Updated best Fitness Position =   0.62224215


--------
Iteration No: 9
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0036
    0.0264
    0.0162

Particle 1 ::   pos(duty)=   0.64436252    fitness(Output Power)= 175.38478286
Particle 2 ::   pos(duty)=   0.62463861    fitness(Output Power)= 180.15864056
Particle 3 ::   pos(duty)=   0.64030987    fitness(Output Power)= 177.02709809
```

```
Updated best Fitness Position =   0.62224215


--------
Iteration No: 10
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0241
    0.0213
   -0.0029

Particle 1 ::   pos(duty)=   0.62027809    fitness(Output Power)= 180.19427989
Particle 2 ::   pos(duty)=   0.64596717    fitness(Output Power)= 174.64812846
Particle 3 ::   pos(duty)=   0.63738460    fitness(Output Power)= 177.97251331


Updated best Fitness Position =   0.62224215


--------
Iteration No: 11
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0207
   -0.0045
   -0.0172

Particle 1 ::   pos(duty)=   0.59958413    fitness(Output Power)= 176.58822083
Particle 2 ::   pos(duty)=   0.64143784    fitness(Output Power)= 176.59627927
Particle 3 ::   pos(duty)=   0.62017453    fitness(Output Power)= 180.19094132


Updated best Fitness Position =   0.62224215


--------
Iteration No: 12
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0031
   -0.0233
   -0.0129

Particle 1 ::   pos(duty)=   0.60263555    fitness(Output Power)= 177.44633634
Particle 2 ::   pos(duty)=   0.61816576    fitness(Output Power)= 180.09509245
Particle 3 ::   pos(duty)=   0.60731820    fitness(Output Power)= 178.54700287


Updated best Fitness Position =   0.62224215


--------
```

```
Iteration No: 13
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0214
   -0.0169
    0.0039

Particle 1 ::   pos(duty)=   0.62400640    fitness(Output Power)= 180.18386976
Particle 2 ::   pos(duty)=   0.60129727    fitness(Output Power)= 177.07717215
Particle 3 ::   pos(duty)=   0.61123658    fitness(Output Power)= 179.30226694


Updated best Fitness Position =   0.62224215


--------
Iteration No: 14
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0165
    0.0058
    0.0151

Particle 1 ::   pos(duty)=   0.64049388    fitness(Output Power)= 176.94259161
Particle 2 ::   pos(duty)=   0.60706051    fitness(Output Power)= 178.48746873
Particle 3 ::   pos(duty)=   0.62633381    fitness(Output Power)= 180.05315632


Updated best Fitness Position =   0.62224215


--------
Iteration No: 15
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0044
    0.0204
    0.0101

Particle 1 ::   pos(duty)=   0.63609885    fitness(Output Power)= 178.34927786
Particle 2 ::   pos(duty)=   0.62742906    fitness(Output Power)= 179.95916441
Particle 3 ::   pos(duty)=   0.63639478    fitness(Output Power)= 178.25773551


Updated best Fitness Position =   0.62224215


--------
Iteration No: 16
c1 =   0.50000000    c2 =   0.50000000
velocity =
```

```
   -0.0188
    0.0131
   -0.0045

Particle 1 ::   pos(duty)=   0.61730459    fitness(Output Power)= 180.03895504
Particle 2 ::   pos(duty)=   0.64057385    fitness(Output Power)= 176.91423626
Particle 3 ::   pos(duty)=   0.63186214    fitness(Output Power)= 179.31584764


Updated best Fitness Position =   0.62224215


--------
Iteration No: 17
c1 =   0.50000000    c2 =   0.50000000
velocity =

   -0.0130
   -0.0065
   -0.0131

Particle 1 ::   pos(duty)=   0.60434528    fitness(Output Power)= 177.86113135
Particle 2 ::   pos(duty)=   0.63407245    fitness(Output Power)= 178.85965631
Particle 3 ::   pos(duty)=   0.61872790    fitness(Output Power)= 180.12862488


Updated best Fitness Position =   0.62224215


--------
Iteration No: 18
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0053
   -0.0177
   -0.0077

Particle 1 ::   pos(duty)=   0.60959674    fitness(Output Power)= 179.00599579
Particle 2 ::   pos(duty)=   0.61639089    fitness(Output Power)= 179.96135472
Particle 3 ::   pos(duty)=   0.61098645    fitness(Output Power)= 179.25967359


Updated best Fitness Position =   0.62224215


--------
Iteration No: 19
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0164
   -0.0101
    0.0049
```

```
Particle 1 ::   pos(duty)=   0.62598643    fitness(Output Power)= 180.08239806
Particle 2 ::   pos(duty)=   0.60632874    fitness(Output Power)= 178.33339060
Particle 3 ::   pos(duty)=   0.61583997    fitness(Output Power)= 179.90540009


Updated best Fitness Position =   0.62224215


--------
Iteration No: 20
c1 =   0.50000000    c2 =   0.50000000
velocity =

    0.0100
    0.0069
    0.0113

Particle 1 ::   pos(duty)=   0.63601084    fitness(Output Power)= 178.37188198
Particle 2 ::   pos(duty)=   0.61318621    fitness(Output Power)= 179.58821301
Particle 3 ::   pos(duty)=   0.62717543    fitness(Output Power)= 179.97771251


Updated best Fitness Position =   0.62224215


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>>
```