

Initial Parameters...

R(load) = 500 ohms

c1 = 0.50

c2 = 0.50

r = 5.00

w = 0.50

-----

INITIAL Particle 1 ::	pos(duty)=	0.40000000	fitness(Output Power)=	10.64447425
-----------------------	------------	------------	------------------------	-------------

INITIAL Particle 2 ::	pos(duty)=	0.60000000	fitness(Output Power)=	24.91191014
-----------------------	------------	------------	------------------------	-------------

INITIAL Particle 3 ::	pos(duty)=	0.80000000	fitness(Output Power)=	91.01744190
-----------------------	------------	------------	------------------------	-------------

=====

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

=====

Iteration No: 1

velocity =

0.0800

0.0400

0

Particle 1 ::	pos(duty)=	0.48000000	fitness(Output Power)=	17.91242412
---------------	------------	------------	------------------------	-------------

Particle 2 ::	pos(duty)=	0.64000000	fitness(Output Power)=	31.65212326
---------------	------------	------------	------------------------	-------------

Particle 3 ::	pos(duty)=	0.80000000	fitness(Output Power)=	91.01744190
---------------	------------	------------	------------------------	-------------

Updated best Fitness Position = 0.80000000

-----

Iteration No: 2

velocity =

0.1040

0.0520

0

Particle 1 ::	pos(duty)=	0.58400000	fitness(Output Power)=	24.91191014
---------------	------------	------------	------------------------	-------------

Particle 2 ::	pos(duty)=	0.69200000	fitness(Output Power)=	44.38993712
---------------	------------	------------	------------------------	-------------

Particle 3 ::	pos(duty)=	0.80000000	fitness(Output Power)=	91.01744190
---------------	------------	------------	------------------------	-------------

Updated best Fitness Position = 0.80000000

-----

Iteration No: 3

velocity =

0.0952

0.0476

0

Particle 1 ::	pos(duty)=	0.67920000	fitness(Output Power)=	38.14194079
---------------	------------	------------	------------------------	-------------

```
Particle 2 :: pos(duty)= 0.73960000 fitness(Output Power)= 56.19331028
Particle 3 :: pos(duty)= 0.80000000 fitness(Output Power)= 91.01744190
```

```
Updated best Fitness Position = 0.80000000
```

```
-----
```

```
Iteration No: 4
```

```
velocity =
```

```
0.0718
0.0359
0
```

```
Particle 1 :: pos(duty)= 0.75096000 fitness(Output Power)= 61.76441209
Particle 2 :: pos(duty)= 0.77548000 fitness(Output Power)= 72.28276608
Particle 3 :: pos(duty)= 0.80000000 fitness(Output Power)= 91.01744190
```

```
Updated best Fitness Position = 0.80000000
```

```
-----
```

```
Iteration No: 5
```

```
velocity =
```

```
0.0457
0.0228
0
```

```
Particle 1 :: pos(duty)= 0.79664800 fitness(Output Power)= 86.60514184
Particle 2 :: pos(duty)= 0.79832400 fitness(Output Power)= 91.01744190
Particle 3 :: pos(duty)= 0.80000000 fitness(Output Power)= 91.01744190
```

```
Updated best Fitness Position = 0.79832400
```

```
-----
```

```
Iteration No: 6
```

```
velocity =
```

```
0.0232
0.0114
-0.0003
```

```
Particle 1 :: pos(duty)= 0.81982720 fitness(Output Power)= 110.63345248
Particle 2 :: pos(duty)= 0.80974600 fitness(Output Power)= 99.33598333
Particle 3 :: pos(duty)= 0.79966480 fitness(Output Power)= 91.01744190
```

```
Updated best Fitness Position = 0.81982720
```

-----

Iteration No: 7

velocity =

0.0116

0.0077

0.0039

Particle 1 :: pos(duty)= 0.83141680 fitness(Output Power)= 120.64004399

Particle 2 :: pos(duty)= 0.81747324 fitness(Output Power)= 107.01779235

Particle 3 :: pos(duty)= 0.80352968 fitness(Output Power)= 95.25910546

Updated best Fitness Position = 0.83141680

-----

Iteration No: 8

velocity =

0.0058

0.0067

0.0075

Particle 1 :: pos(duty)= 0.83721160 fitness(Output Power)= 129.48413285

Particle 2 :: pos(duty)= 0.82412557 fitness(Output Power)= 114.10579781

Particle 3 :: pos(duty)= 0.81103954 fitness(Output Power)= 99.33598333

Updated best Fitness Position = 0.83721160

-----

Iteration No: 9

velocity =

0.0029

0.0059

0.0090

Particle 1 :: pos(duty)= 0.84010900 fitness(Output Power)= 132.19415921

Particle 2 :: pos(duty)= 0.83006894 fitness(Output Power)= 120.64004399

Particle 3 :: pos(duty)= 0.82002889 fitness(Output Power)= 110.63345248

Updated best Fitness Position = 0.84010900

-----

Iteration No: 10

velocity =

0.0014

0.0050

0.0085

```
Particle 1 :: pos(duty)= 0.84155770 fitness(Output Power)= 134.79195338
Particle 2 :: pos(duty)= 0.83504864 fitness(Output Power)= 126.65788382
Particle 3 :: pos(duty)= 0.82853958 fitness(Output Power)= 117.43974535
```

Updated best Fitness Position = 0.84155770

-----

Iteration No: 11

velocity =

```
0.0007
0.0038
0.0069
```

```
Particle 1 :: pos(duty)= 0.84228205 fitness(Output Power)= 134.79195338
Particle 2 :: pos(duty)= 0.83884030 fitness(Output Power)= 129.48413285
Particle 3 :: pos(duty)= 0.83539855 fitness(Output Power)= 126.65788382
```

Updated best Fitness Position = 0.84228205

-----

Iteration No: 12

velocity =

```
0.0004
0.0026
0.0048
```

```
Particle 1 :: pos(duty)= 0.84264423 fitness(Output Power)= 134.79195338
Particle 2 :: pos(duty)= 0.84142448 fitness(Output Power)= 134.79195338
Particle 3 :: pos(duty)= 0.84020474 fitness(Output Power)= 132.19415921
```

Updated best Fitness Position = 0.84264423

-----

Iteration No: 13

velocity =

```
0.0002
0.0015
0.0029
```

```
Particle 1 :: pos(duty)= 0.84282531 fitness(Output Power)= 134.79195338
Particle 2 :: pos(duty)= 0.84296052 fitness(Output Power)= 137.28136936
Particle 3 :: pos(duty)= 0.84309573 fitness(Output Power)= 137.28136936
```

Updated best Fitness Position = 0.84296052

-----

Iteration No: 14

velocity =

0.0001

0.0008

0.0014

Particle 1 :: pos(duty)= 0.84294290 fitness(Output Power)= 137.28136936

Particle 2 :: pos(duty)= 0.84372854 fitness(Output Power)= 137.28136936

Particle 3 :: pos(duty)= 0.84451418 fitness(Output Power)= 137.28136936

Updated best Fitness Position = 0.84294290

-----

Iteration No: 15

velocity =

1.0e-03 \*

0.0588

0.2269

0.3950

Particle 1 :: pos(duty)= 0.84300169 fitness(Output Power)= 137.28136936

Particle 2 :: pos(duty)= 0.84395542 fitness(Output Power)= 137.28136936

Particle 3 :: pos(duty)= 0.84490915 fitness(Output Power)= 139.66612924

Updated best Fitness Position = 0.84490915

-----

Iteration No: 16

velocity =

1.0e-03 \*

0.4109

0.3042

0.1975

Particle 1 :: pos(duty)= 0.84341258 fitness(Output Power)= 137.28136936

Particle 2 :: pos(duty)= 0.84425961 fitness(Output Power)= 137.28136936

Particle 3 :: pos(duty)= 0.84510664 fitness(Output Power)= 139.66612924

Updated best Fitness Position = 0.84510664

-----

Iteration No: 17

velocity =

1.0e-03 \*

0.5443

0.3215

0.0987

Particle 1 :: pos(duty)= 0.84395683 fitness(Output Power)= 137.28136936

Particle 2 :: pos(duty)= 0.84458111 fitness(Output Power)= 137.28136936

Particle 3 :: pos(duty)= 0.84520538 fitness(Output Power)= 139.66612924

Updated best Fitness Position = 0.84520538

-----

Iteration No: 18

velocity =

1.0e-03 \*

0.5218

0.2856

0.0494

Particle 1 :: pos(duty)= 0.84447867 fitness(Output Power)= 137.28136936

Particle 2 :: pos(duty)= 0.84486671 fitness(Output Power)= 139.66612924

Particle 3 :: pos(duty)= 0.84525475 fitness(Output Power)= 139.66612924

Updated best Fitness Position = 0.84486671

-----

Iteration No: 19

velocity =

1.0e-03 \*

0.3385

0.1428

-0.0529

Particle 1 :: pos(duty)= 0.84481720 fitness(Output Power)= 139.66612924

Particle 2 :: pos(duty)= 0.84500951 fitness(Output Power)= 139.66612924

Particle 3 :: pos(duty)= 0.84520183 fitness(Output Power)= 139.66612924

Updated best Fitness Position = 0.84481720

-----

Iteration No: 20

```
velocity =
```

```
1.0e-03 *
```

```
0.1693
```

```
0.0329
```

```
-0.1034
```

```
Particle 1 :: pos(duty)= 0.84498646 fitness(Output Power)= 139.66612924
```

```
Particle 2 :: pos(duty)= 0.84504245 fitness(Output Power)= 139.66612924
```

```
Particle 3 :: pos(duty)= 0.84509844 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84498646
```

```
-----
```

```
Iteration No: 21
```

```
velocity =
```

```
1.0e-04 *
```

```
0.8463
```

```
0.0527
```

```
-0.7409
```

```
Particle 1 :: pos(duty)= 0.84507109 fitness(Output Power)= 139.66612924
```

```
Particle 2 :: pos(duty)= 0.84504772 fitness(Output Power)= 139.66612924
```

```
Particle 3 :: pos(duty)= 0.84502435 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84507109
```

```
-----
```

```
Iteration No: 22
```

```
velocity =
```

```
1.0e-04 *
```

```
0.4232
```

```
0.0731
```

```
-0.2770
```

```
Particle 1 :: pos(duty)= 0.84511341 fitness(Output Power)= 139.66612924
```

```
Particle 2 :: pos(duty)= 0.84505503 fitness(Output Power)= 139.66612924
```

```
Particle 3 :: pos(duty)= 0.84499665 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84511341
```

```
-----
```

```
Iteration No: 23
```

```
velocity =
```

1.0e-04 \*

0.2116

0.1533

0.0950

Particle 1 ::	pos(duty)=	0.84513457	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84507036	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84500616	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84513457

-----

Iteration No: 24

velocity =

1.0e-04 \*

0.1058

0.2051

0.3043

Particle 1 ::	pos(duty)=	0.84514514	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84509087	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84503659	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84514514

-----

Iteration No: 25

velocity =

1.0e-04 \*

0.0529

0.2111

0.3693

Particle 1 ::	pos(duty)=	0.84515043	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84511198	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84507352	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515043

-----

Iteration No: 26

velocity =



1.0e-04 \*

0.0264

0.1825

0.3385

Particle 1 ::	pos(duty)=	0.84515308	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84513022	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84510736	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515308

-----

Iteration No: 27

velocity =

1.0e-04 \*

0.0132

0.1369

0.2607

Particle 1 ::	pos(duty)=	0.84515440	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84514392	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84513343	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515440

-----

Iteration No: 28

velocity =

1.0e-04 \*

0.0066

0.0894

0.1723

Particle 1 ::	pos(duty)=	0.84515506	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84515286	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84515066	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515506

-----

Iteration No: 29

velocity =

1.0e-05 \*

0.0331  
0.4913  
0.9495

Particle 1 ::	pos(duty)=	0.84515539	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84515777	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84516015	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515539

-----

Iteration No: 30

velocity =

1.0e-05 \*

0.0165  
0.1980  
0.3795

Particle 1 ::	pos(duty)=	0.84515556	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84515975	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84516395	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515556

-----

Iteration No: 31

velocity =

1.0e-06 \*

0.0826  
0.1512  
0.2197

Particle 1 ::	pos(duty)=	0.84515564	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84515990	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84516417	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515564

-----

Iteration No: 32

velocity =

1.0e-05 \*

```
0.0041
-0.0777
-0.1595
```

```
Particle 1 :: pos(duty)= 0.84515568 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515913 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84516257 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84515568
```

```
-----
Iteration No: 33
velocity =
```

```
1.0e-05 *

0.0021
-0.1078
-0.2176
```

```
Particle 1 :: pos(duty)= 0.84515570 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515805 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84516040 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84515570
```

```
-----
Iteration No: 34
velocity =
```

```
1.0e-05 *

0.0010
-0.1008
-0.2027
```

```
Particle 1 :: pos(duty)= 0.84515571 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515704 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84515837 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84515571
```

```
-----
Iteration No: 35
velocity =
```

```
1.0e-05 *

0.0005
```

-0.0770  
-0.1545

Particle 1 ::	pos(duty)=	0.84515572	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84515627	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84515683	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515572

-----  
Iteration No: 36  
velocity =

1.0e-06 \*  
  
0.0026  
-0.4955  
-0.9937

Particle 1 ::	pos(duty)=	0.84515572	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84515578	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84515583	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515572

-----  
Iteration No: 37  
velocity =

1.0e-06 \*  
  
0.0013  
-0.2588  
-0.5190

Particle 1 ::	pos(duty)=	0.84515572	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84515552	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84515531	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515572

-----  
Iteration No: 38  
velocity =

1.0e-06 \*  
  
0.0006  
-0.0885

-0.1775

Particle 1 ::	pos(duty)=	0.84515572	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84515543	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84515513	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515572

-----

Iteration No: 39

velocity =

1.0e-07 \*

0.0032

0.1456

0.2879

Particle 1 ::	pos(duty)=	0.84515572	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84515544	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84515516	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515572

-----

Iteration No: 40

velocity =

1.0e-06 \*

0.0002

0.0632

0.1263

Particle 1 ::	pos(duty)=	0.84515572	fitness(Output Power)=	139.66612924
Particle 2 ::	pos(duty)=	0.84515551	fitness(Output Power)=	139.66612924
Particle 3 ::	pos(duty)=	0.84515529	fitness(Output Power)=	139.66612924

Updated best Fitness Position = 0.84515572

-----

Iteration No: 41

velocity =

1.0e-06 \*

0.0001

0.0749

0.1498

```
Particle 1 :: pos(duty)= 0.84515572 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515558 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84515544 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84515572
```

```
-----
```

```
Iteration No: 42
```

```
velocity =
```

```
1.0e-06 *
```

```
0.0000
```

```
0.0658
```

```
0.1316
```

```
Particle 1 :: pos(duty)= 0.84515572 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515565 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84515557 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84515572
```

```
-----
```

```
Iteration No: 43
```

```
velocity =
```

```
1.0e-07 *
```

```
0.0002
```

```
0.4811
```

```
0.9620
```

```
Particle 1 :: pos(duty)= 0.84515572 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515570 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84515567 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84515572
```

```
-----
```

```
Iteration No: 44
```

```
velocity =
```

```
1.0e-07 *
```

```
0.0001
```

```
0.2964
```

```
0.5926
```

```
Particle 1 :: pos(duty)= 0.84515572 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515573 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84515573 fitness(Output Power)= 139.66612924
```

Updated best Fitness Position = 0.84515572

-----

Iteration No: 45

velocity =

1.0e-07 \*

0.0001

0.1447

0.2894

```
Particle 1 :: pos(duty)= 0.84515572 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515574 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84515576 fitness(Output Power)= 139.66612924
```

Updated best Fitness Position = 0.84515572

-----

Iteration No: 46

velocity =

1.0e-08 \*

0.0003

0.3999

0.7995

```
Particle 1 :: pos(duty)= 0.84515572 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515574 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84515576 fitness(Output Power)= 139.66612924
```

Updated best Fitness Position = 0.84515572

-----

Iteration No: 47

velocity =

1.0e-08 \*

0.0001

-0.2038

-0.4077

```
Particle 1 :: pos(duty)= 0.84515572 fitness(Output Power)= 139.66612924
```

```
Particle 2 :: pos(duty)= 0.84515574 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84515576 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84515572
```

```
-----
```

```
Iteration No: 48
```

```
velocity =
```

```
1.0e-08 *
```

```
0.0001
```

```
-0.4648
```

```
-0.9297
```

```
Particle 1 :: pos(duty)= 0.84515572 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515574 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84515575 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84515572
```

```
-----
```

```
Iteration No: 49
```

```
velocity =
```

```
1.0e-07 *
```

```
0.0000
```

```
-0.0502
```

```
-0.1005
```

```
Particle 1 :: pos(duty)= 0.84515572 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515573 fitness(Output Power)= 139.66612924
Particle 3 :: pos(duty)= 0.84515574 fitness(Output Power)= 139.66612924
```

```
Updated best Fitness Position = 0.84515572
```

```
-----
```

```
Iteration No: 50
```

```
velocity =
```

```
1.0e-08 *
```

```
0.0000
```

```
-0.4207
```

```
-0.8414
```

```
Particle 1 :: pos(duty)= 0.84515572 fitness(Output Power)= 139.66612924
Particle 2 :: pos(duty)= 0.84515573 fitness(Output Power)= 139.66612924
```



Particle 3 :: pos(duty)= 0.84515573 fitness(Output Power)= 139.66612924

Updated best Fitness Position = 0.84515572

-----

>>