

Initial Parameters...

R(load) = 500 ohms

r = 0.40

w = 0.10

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INITIAL Particle 1 ::	pos(duty)=	0.40000000	fitness(Output Power)=	10.64447425
INITIAL Particle 2 ::	pos(duty)=	0.60000000	fitness(Output Power)=	23.53304429
INITIAL Particle 3 ::	pos(duty)=	0.95000000	fitness(Output Power)=	37.11431295

=====

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

=====

Iteration No: 1

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0440

0.0280

0

Particle 1 ::	pos(duty)=	0.44400000	fitness(Output Power)=	12.85360770
Particle 2 ::	pos(duty)=	0.62800000	fitness(Output Power)=	27.63860410
Particle 3 ::	pos(duty)=	0.95000000	fitness(Output Power)=	37.11431295

Updated best Fitness Position = 0.95000000

-----

Iteration No: 2

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0449

0.0286

0

Particle 1 ::	pos(duty)=	0.48888000	fitness(Output Power)=	15.03798532
Particle 2 ::	pos(duty)=	0.65656000	fitness(Output Power)=	31.65212326
Particle 3 ::	pos(duty)=	0.95000000	fitness(Output Power)=	37.11431295

Updated best Fitness Position = 0.95000000

-----

Iteration No: 3

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0414

0.0263

0

```
Particle 1 :: pos(duty)= 0.53025760 fitness(Output Power)= 17.19786443
Particle 2 :: pos(duty)= 0.68289120 fitness(Output Power)= 37.50398015
Particle 3 :: pos(duty)= 0.95000000 fitness(Output Power)= 37.11431295
```

Updated best Fitness Position = 0.68289120

-----

Iteration No: 4

c1 = 0.20000000 c2 = 0.20000000

velocity =

```
0.0163
0.0026
-0.0214
```

```
Particle 1 :: pos(duty)= 0.54660605 fitness(Output Power)= 18.62429944
Particle 2 :: pos(duty)= 0.68552432 fitness(Output Power)= 38.14194079
Particle 3 :: pos(duty)= 0.92863130 fitness(Output Power)= 75.58721914
```

Updated best Fitness Position = 0.92863130

-----

Iteration No: 5

c1 = 0.20000000 c2 = 0.20000000

velocity =

```
0.0322
0.0197
-0.0021
```

```
Particle 1 :: pos(duty)= 0.57880291 fitness(Output Power)= 21.44514320
Particle 2 :: pos(duty)= 0.70523619 fitness(Output Power)= 43.15928189
Particle 3 :: pos(duty)= 0.92649443 fitness(Output Power)= 80.21797972
```

Updated best Fitness Position = 0.92649443

-----

Iteration No: 6

c1 = 0.20000000 c2 = 0.20000000

velocity =

```
0.0310
0.0197
-0.0002
```

```
Particle 1 :: pos(duty)= 0.60983792 fitness(Output Power)= 24.91191014
Particle 2 :: pos(duty)= 0.72490804 fitness(Output Power)= 49.21979779
Particle 3 :: pos(duty)= 0.92628074 fitness(Output Power)= 80.65378471
```

Updated best Fitness Position = 0.92628074

-----

Iteration No: 7

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0284

0.0181

-0.0000

Particle 1 :: pos(duty)= 0.63825685 fitness(Output Power)= 28.98657571

Particle 2 :: pos(duty)= 0.74298504 fitness(Output Power)= 55.62434568

Particle 3 :: pos(duty)= 0.92625937 fitness(Output Power)= 80.70825991

Updated best Fitness Position = 0.92625937

-----

Iteration No: 8

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0259

0.0165

-0.0000

Particle 1 :: pos(duty)= 0.66413894 fitness(Output Power)= 33.62496416

Particle 2 :: pos(duty)= 0.75945468 fitness(Output Power)= 63.39439115

Particle 3 :: pos(duty)= 0.92625723 fitness(Output Power)= 80.70825991

Updated best Fitness Position = 0.92625723

-----

Iteration No: 9

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0236

0.0150

-0.0000

Particle 1 :: pos(duty)= 0.68769661 fitness(Output Power)= 38.14194079

Particle 2 :: pos(duty)= 0.77444585 fitness(Output Power)= 71.26715916

Particle 3 :: pos(duty)= 0.92625702 fitness(Output Power)= 80.70825991

Updated best Fitness Position = 0.92625702

-----

Iteration No: 10

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0214

0.0136

-0.0000

Particle 1 :: pos(duty)= 0.70913721 fitness(Output Power)= 43.77578116

Particle 2 :: pos(duty)= 0.78808986 fitness(Output Power)= 80.12967783

Particle 3 :: pos(duty)= 0.92625700 fitness(Output Power)= 80.70825991

Updated best Fitness Position = 0.92625700

-----

Iteration No: 11

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0195

0.0124

-0.0000

Particle 1 :: pos(duty)= 0.72865086 fitness(Output Power)= 50.40439394

Particle 2 :: pos(duty)= 0.80050763 fitness(Output Power)= 89.27333278

Particle 3 :: pos(duty)= 0.92625700 fitness(Output Power)= 80.70825991

Updated best Fitness Position = 0.80050763

-----

Iteration No: 12

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0077

0.0012

-0.0101

Particle 1 :: pos(duty)= 0.73635076 fitness(Output Power)= 53.32655550

Particle 2 :: pos(duty)= 0.80174941 fitness(Output Power)= 90.58398885

Particle 3 :: pos(duty)= 0.91619705 fitness(Output Power)= 104.22503965

Updated best Fitness Position = 0.91619705

-----

Iteration No: 13

c1 = 0.20000000 c2 = 0.20000000

velocity =

```
0.0152
0.0093
-0.0010
```

```
Particle 1 :: pos(duty)= 0.75150846 fitness(Output Power)= 59.56162573
Particle 2 :: pos(duty)= 0.81102940 fitness(Output Power)= 98.53351655
Particle 3 :: pos(duty)= 0.91519105 fitness(Output Power)= 106.72564194
```

```
Updated best Fitness Position = 0.91519105
```

```
-----
```

```
Iteration No: 14
```

```
c1 = 0.20000000 c2 = 0.20000000
```

```
velocity =
```

```
0.0146
0.0093
-0.0001
```

```
Particle 1 :: pos(duty)= 0.76611883 fitness(Output Power)= 66.59834511
Particle 2 :: pos(duty)= 0.82029033 fitness(Output Power)= 107.75263137
Particle 3 :: pos(duty)= 0.91509045 fitness(Output Power)= 106.94303204
```

```
Updated best Fitness Position = 0.82029033
```

```
-----
```

```
Iteration No: 15
```

```
c1 = 0.20000000 c2 = 0.20000000
```

```
velocity =
```

```
0.0058
0.0009
-0.0076
```

```
Particle 1 :: pos(duty)= 0.77191359 fitness(Output Power)= 69.72891620
Particle 2 :: pos(duty)= 0.82121642 fitness(Output Power)= 108.84385080
Particle 3 :: pos(duty)= 0.90749638 fitness(Output Power)= 126.71685381
```

```
Updated best Fitness Position = 0.90749638
```

```
-----
```

```
Iteration No: 16
```

```
c1 = 0.20000000 c2 = 0.20000000
```

```
velocity =
```

```
0.0114
0.0070
-0.0008
```

```
Particle 1 :: pos(duty)= 0.78333969 fitness(Output Power)= 76.75667963
Particle 2 :: pos(duty)= 0.82821143 fitness(Output Power)= 116.45380711
Particle 3 :: pos(duty)= 0.90673698 fitness(Output Power)= 128.76376691
```

```
Updated best Fitness Position = 0.90673698
```

```
-----
```

```
Iteration No: 17
```

```
c1 = 0.20000000 c2 = 0.20000000
```

```
velocity =
```

```
0.0110
0.0070
-0.0001
```

```
Particle 1 :: pos(duty)= 0.79435408 fitness(Output Power)= 84.79109378
Particle 2 :: pos(duty)= 0.83519297 fitness(Output Power)= 124.90463469
Particle 3 :: pos(duty)= 0.90666103 fitness(Output Power)= 128.97903121
```

```
Updated best Fitness Position = 0.90666103
```

```
-----
```

```
Iteration No: 18
```

```
c1 = 0.20000000 c2 = 0.20000000
```

```
velocity =
```

```
0.0101
0.0064
-0.0000
```

```
Particle 1 :: pos(duty)= 0.80444008 fitness(Output Power)= 92.73425150
Particle 2 :: pos(duty)= 0.84160857 fitness(Output Power)= 133.24652591
Particle 3 :: pos(duty)= 0.90665344 fitness(Output Power)= 129.03284101
```

```
Updated best Fitness Position = 0.84160857
```

```
-----
```

```
Iteration No: 19
```

```
c1 = 0.20000000 c2 = 0.20000000
```

```
velocity =
```

```
0.0040
0.0006
-0.0052
```

```
Particle 1 :: pos(duty)= 0.80842216 fitness(Output Power)= 96.08748023
Particle 2 :: pos(duty)= 0.84225013 fitness(Output Power)= 134.02416760
Particle 3 :: pos(duty)= 0.90144909 fitness(Output Power)= 143.21945820
```

Updated best Fitness Position = 0.90144909

-----

Iteration No: 20

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0078

0.0048

-0.0005

Particle 1 :: pos(duty)= 0.81626252 fitness(Output Power)= 103.63696002

Particle 2 :: pos(duty)= 0.84705021 fitness(Output Power)= 140.82039137

Particle 3 :: pos(duty)= 0.90092866 fitness(Output Power)= 144.63934490

Updated best Fitness Position = 0.90092866

-----

Iteration No: 21

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0076

0.0048

-0.0001

Particle 1 :: pos(duty)= 0.82381985 fitness(Output Power)= 111.68997710

Particle 2 :: pos(duty)= 0.85184049 fitness(Output Power)= 147.63778705

Particle 3 :: pos(duty)= 0.90087661 fitness(Output Power)= 144.79679254

Updated best Fitness Position = 0.85184049

-----

Iteration No: 22

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0030

0.0005

-0.0039

Particle 1 :: pos(duty)= 0.82681723 fitness(Output Power)= 114.78350479

Particle 2 :: pos(duty)= 0.85231952 fitness(Output Power)= 148.22868244

Particle 3 :: pos(duty)= 0.89694852 fitness(Output Power)= 155.35344574

Updated best Fitness Position = 0.89694852

-----

Iteration No: 23

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0059

0.0036

-0.0004

Particle 1 :: pos(duty)= 0.83272747 fitness(Output Power)= 121.88377447

Particle 2 :: pos(duty)= 0.85593774 fitness(Output Power)= 153.54503654

Particle 3 :: pos(duty)= 0.89655571 fitness(Output Power)= 156.35534021

Updated best Fitness Position = 0.89655571

-----

Iteration No: 24

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0057

0.0036

-0.0000

Particle 1 :: pos(duty)= 0.83842476 fitness(Output Power)= 128.92831101

Particle 2 :: pos(duty)= 0.85954900 fitness(Output Power)= 158.93186097

Particle 3 :: pos(duty)= 0.89651643 fitness(Output Power)= 156.45517625

Updated best Fitness Position = 0.85954900

-----

Iteration No: 25

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0023

0.0004

-0.0030

Particle 1 :: pos(duty)= 0.84068442 fitness(Output Power)= 131.92827178

Particle 2 :: pos(duty)= 0.85991013 fitness(Output Power)= 159.36659360

Particle 3 :: pos(duty)= 0.89355511 fitness(Output Power)= 163.80960260

Updated best Fitness Position = 0.89355511

-----

Iteration No: 26

c1 = 0.20000000 c2 = 0.20000000



velocity =

0.0045  
0.0027  
-0.0003

Particle 1 ::	pos(duty)=	0.84514005	fitness(Output Power)=	138.00762023
Particle 2 ::	pos(duty)=	0.86263784	fitness(Output Power)=	163.37927532
Particle 3 ::	pos(duty)=	0.89325897	fitness(Output Power)=	164.50487097

Updated best Fitness Position = 0.89325897

-----

Iteration No: 27

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0043  
0.0027  
-0.0000

Particle 1 ::	pos(duty)=	0.84943512	fitness(Output Power)=	144.13593671
Particle 2 ::	pos(duty)=	0.86536030	fitness(Output Power)=	167.14213430
Particle 3 ::	pos(duty)=	0.89322936	fitness(Output Power)=	164.59707202

Updated best Fitness Position = 0.86536030

-----

Iteration No: 28

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0017  
0.0003  
-0.0022

Particle 1 ::	pos(duty)=	0.85113864	fitness(Output Power)=	146.63516184
Particle 2 ::	pos(duty)=	0.86563255	fitness(Output Power)=	167.55540107
Particle 3 ::	pos(duty)=	0.89099687	fitness(Output Power)=	169.41402321

Updated best Fitness Position = 0.89099687

-----

Iteration No: 29

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0034  
0.0021

-0.0002

Particle 1 ::	pos(duty)=	0.85449765	fitness(Output Power)=	151.43012419
Particle 2 ::	pos(duty)=	0.86768892	fitness(Output Power)=	170.20791396
Particle 3 ::	pos(duty)=	0.89077363	fitness(Output Power)=	169.87391436

Updated best Fitness Position = 0.86768892

-----

Iteration No: 30

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0014

0.0002

-0.0019

Particle 1 ::	pos(duty)=	0.85588886	fitness(Output Power)=	153.54503654
Particle 2 ::	pos(duty)=	0.86789455	fitness(Output Power)=	170.46816386
Particle 3 ::	pos(duty)=	0.88890452	fitness(Output Power)=	173.29522852

Updated best Fitness Position = 0.88890452

-----

Iteration No: 31

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0028

0.0017

-0.0002

Particle 1 ::	pos(duty)=	0.85866923	fitness(Output Power)=	157.58933414
Particle 2 ::	pos(duty)=	0.86959592	fitness(Output Power)=	172.54202137
Particle 3 ::	pos(duty)=	0.88871761	fitness(Output Power)=	173.58801472

Updated best Fitness Position = 0.88871761

-----

Iteration No: 32

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0027

0.0017

-0.0000

Particle 1 ::	pos(duty)=	0.86135114	fitness(Output Power)=	161.44740104
Particle 2 ::	pos(duty)=	0.87129579	fitness(Output Power)=	174.49592618

Particle 3 :: pos(duty)= 0.88869892 fitness(Output Power)= 173.62432446

Updated best Fitness Position = 0.87129579

-----

Iteration No: 33

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0011

0.0002

-0.0014

Particle 1 :: pos(duty)= 0.86241490 fitness(Output Power)= 163.00444361

Particle 2 :: pos(duty)= 0.87146577 fitness(Output Power)= 174.67785864

Particle 3 :: pos(duty)= 0.88730480 fitness(Output Power)= 175.70736453

Updated best Fitness Position = 0.88730480

-----

Iteration No: 34

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0021

0.0013

-0.0001

Particle 1 :: pos(duty)= 0.86451247 fitness(Output Power)= 165.95912087

Particle 2 :: pos(duty)= 0.87274990 fitness(Output Power)= 176.00565095

Particle 3 :: pos(duty)= 0.88716539 fitness(Output Power)= 175.89706752

Updated best Fitness Position = 0.87274990

-----

Iteration No: 35

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0009

0.0001

-0.0012

Particle 1 :: pos(duty)= 0.86538122 fitness(Output Power)= 167.14213430

Particle 2 :: pos(duty)= 0.87287831 fitness(Output Power)= 176.10639714

Particle 3 :: pos(duty)= 0.88599821 fitness(Output Power)= 177.30262306

Updated best Fitness Position = 0.88599821

-----

Iteration No: 36

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0017

0.0011

-0.0001

Particle 1 :: pos(duty)= 0.86711745 fitness(Output Power)= 169.49178306

Particle 2 :: pos(duty)= 0.87394074 fitness(Output Power)= 177.11954390

Particle 3 :: pos(duty)= 0.88588149 fitness(Output Power)= 177.43675361

Updated best Fitness Position = 0.88588149

-----

Iteration No: 37

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0017

0.0011

-0.0000

Particle 1 :: pos(duty)= 0.86879220 fitness(Output Power)= 171.62452877

Particle 2 :: pos(duty)= 0.87500224 fitness(Output Power)= 177.96749201

Particle 3 :: pos(duty)= 0.88586982 fitness(Output Power)= 177.43675361

Updated best Fitness Position = 0.87500224

-----

Iteration No: 38

c1 = 0.20000000 c2 = 0.20000000

velocity =

1.0e-03 \*

0.6643

0.1062

-0.8706

Particle 1 :: pos(duty)= 0.86945648 fitness(Output Power)= 172.39369761

Particle 2 :: pos(duty)= 0.87510839 fitness(Output Power)= 178.03681831

Particle 3 :: pos(duty)= 0.88499925 fitness(Output Power)= 178.28078918

Updated best Fitness Position = 0.88499925

-----

Iteration No: 39

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0013

0.0008

-0.0001

Particle 1 :: pos(duty)= 0.87076633 fitness(Output Power)= 173.92794010

Particle 2 :: pos(duty)= 0.87591028 fitness(Output Power)= 178.60535123

Particle 3 :: pos(duty)= 0.88491219 fitness(Output Power)= 178.34927786

Updated best Fitness Position = 0.87591028

-----

Iteration No: 40

c1 = 0.20000000 c2 = 0.20000000

velocity =

1.0e-03 \*

0.5425

0.0802

-0.7289

Particle 1 :: pos(duty)= 0.87130883 fitness(Output Power)= 174.49592618

Particle 2 :: pos(duty)= 0.87599047 fitness(Output Power)= 178.66252211

Particle 3 :: pos(duty)= 0.88418333 fitness(Output Power)= 178.93799166

Updated best Fitness Position = 0.88418333

-----

Iteration No: 41

c1 = 0.20000000 c2 = 0.20000000

velocity =

0.0011

0.0007

-0.0001

Particle 1 :: pos(duty)= 0.87239304 fitness(Output Power)= 175.64127970

Particle 2 :: pos(duty)= 0.87665391 fitness(Output Power)= 179.07847733

Particle 3 :: pos(duty)= 0.88411045 fitness(Output Power)= 178.97641279

Updated best Fitness Position = 0.87665391

-----

Iteration No: 42

```
c1 = 0.20000000    c2 = 0.20000000
velocity =
```

```
1.0e-03 *
```

```
0.4493
0.0663
-0.6038
```

```
Particle 1 :: pos(duty)= 0.87284233    fitness(Output Power)= 176.10639714
Particle 2 :: pos(duty)= 0.87672026    fitness(Output Power)= 179.10208389
Particle 3 :: pos(duty)= 0.88350663    fitness(Output Power)= 179.36509264
```

```
Updated best Fitness Position = 0.88350663
```

```
-----
```

```
Iteration No: 43
```

```
c1 = 0.20000000    c2 = 0.20000000
velocity =
```

```
1.0e-03 *
```

```
0.8981
0.5495
-0.0604
```

```
Particle 1 :: pos(duty)= 0.87374040    fitness(Output Power)= 176.90424960
Particle 2 :: pos(duty)= 0.87726980    fitness(Output Power)= 179.40409789
Particle 3 :: pos(duty)= 0.88344625    fitness(Output Power)= 179.39724479
```

```
Updated best Fitness Position = 0.87726980
```

```
-----
```

```
Iteration No: 44
```

```
c1 = 0.20000000    c2 = 0.20000000
velocity =
```

```
1.0e-03 *
```

```
0.3722
0.0550
-0.5002
```

```
Particle 1 :: pos(duty)= 0.87411256    fitness(Output Power)= 177.24461701
Particle 2 :: pos(duty)= 0.87732476    fitness(Output Power)= 179.42367396
Particle 3 :: pos(duty)= 0.88294610    fitness(Output Power)= 179.66154020
```

```
Updated best Fitness Position = 0.88294610
```

-----

Iteration No: 45

c1 = 0.20000000 c2 = 0.20000000

velocity =

1.0e-03 \*

0.7439

0.4552

-0.0500

Particle 1 :: pos(duty)= 0.87485646 fitness(Output Power)= 177.86113135

Particle 2 :: pos(duty)= 0.87777996 fitness(Output Power)= 179.63847150

Particle 3 :: pos(duty)= 0.88289608 fitness(Output Power)= 179.68804741

Updated best Fitness Position = 0.88289608

-----

Iteration No: 46

c1 = 0.20000000 c2 = 0.20000000

velocity =

1.0e-03 \*

0.7176

0.4548

-0.0050

Particle 1 :: pos(duty)= 0.87557402 fitness(Output Power)= 178.39592589

Particle 2 :: pos(duty)= 0.87823477 fitness(Output Power)= 179.81720176

Particle 3 :: pos(duty)= 0.88289108 fitness(Output Power)= 179.68804741

Updated best Fitness Position = 0.87823477

-----

Iteration No: 47

c1 = 0.20000000 c2 = 0.20000000

velocity =

1.0e-03 \*

0.2846

0.0455

-0.3730

Particle 1 :: pos(duty)= 0.87585864 fitness(Output Power)= 178.57632475

Particle 2 :: pos(duty)= 0.87828025 fitness(Output Power)= 179.83051507

Particle 3 :: pos(duty)= 0.88251808 fitness(Output Power)= 179.83462399

Updated best Fitness Position = 0.88251808

-----

Iteration No: 48

c1 = 0.20000000 c2 = 0.20000000

velocity =

1.0e-03 \*

0.5612

0.3436

-0.0373

Particle 1 :: pos(duty)= 0.87641985 fitness(Output Power)= 178.93100092

Particle 2 :: pos(duty)= 0.87862383 fitness(Output Power)= 179.93966906

Particle 3 :: pos(duty)= 0.88248078 fitness(Output Power)= 179.85693622

Updated best Fitness Position = 0.87862383

-----

Iteration No: 49

c1 = 0.20000000 c2 = 0.20000000

velocity =

1.0e-03 \*

0.2324

0.0344

-0.3123

Particle 1 :: pos(duty)= 0.87665229 fitness(Output Power)= 179.07847733

Particle 2 :: pos(duty)= 0.87865818 fitness(Output Power)= 179.95062738

Particle 3 :: pos(duty)= 0.88216849 fitness(Output Power)= 179.95916441

Updated best Fitness Position = 0.88216849

-----

Iteration No: 50

c1 = 0.20000000 c2 = 0.20000000

velocity =

1.0e-03 \*

0.4645

0.2843

-0.0312

Particle 1 :: pos(duty)= 0.87711683 fitness(Output Power)= 179.32316297

Particle 2 :: pos(duty)= 0.87894244 fitness(Output Power)= 180.03004655

Particle 3 :: pos(duty)= 0.88213726 fitness(Output Power)= 179.96851855



Updated best Fitness Position = 0.87894244

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