Inputs: $k = 10$, $t_{max} = T$ and $f(\mathbf{x})$; set $w = 0.05$, $c_1 = 0.05$, $c_2 = 0.05$, $c_3 = 0.05$, $c_4 = 0.20$ and initialize parameters $\mathbf{x_i}$, $\mathbf{v_i}$
Outputs: Global best value
$t = 0$,
while $t < t_{max}$
$t \leftarrow t + 1$
Function evaluation step:
Calculate the function $f(\mathbf{x})$ for $\mathbf{x}_i$
Velocity update step:
Randomly choose values for $r_1,\ r_2,\ r_3,\ r_4$ in the range '0' and '1'.
Then update the velocity of each particle as in Eq (7).
Position update step:
Add updated velocity to existing position.
Check constraint on the particles $\mathbf{x}^T P_1 \mathbf{x} \leq 1$.
for $m = 1$ to k
if $\mathbf{x}_m^T P_1 \mathbf{x}_m > 1$ **then**
$\mathbf{x}_m = \mathbf{x}_{mprev}$
end if
end for
end while