ALGORITHM 9: *MinOverlaySchedulingOptimized*(G, P)

```
1: Initialize min_overlay ← +∞
2: Initialize PASS ← MinBufferScheduling(G)
3: repeat
4:    Initialize STATUS to be idle for every time interval
5:    /* Perform actor to region assignment and data overlay */
6:    <<V,R>, do_overhead> ← RegionAssignmentAndDataOverlay(G, PASS, STATUS)
7:    if ∑_{r∈R} C_r ≤ code_mem then
8:       /* Perform actor to segment assignment */
9:       <V,S> ← Segmentation(G, PASS, STATUS, <V,R>)
10:      /* Calculate current code overlay overhead */
11:      cur_overlay ← calCodeOverlayDeepPre(G, PASS, STATUS, <V,R>, <V,S>)
12:      cur_overlay ← cur_overlay + do_overlay
13:      if cur_overlay < min_overlay then
14:         min_overlay ← cur_overlay
15:         solution ← clone(G, PASS, <V,R>, <V,S>)
16:      end if
17:   end if
18: until collapseTwoExecs(PASS) = false
19: return solution
```