1. a) $T = C_{1,9} + C_{2,6} + C_{2,10} + C_{3,9} + C_{4,8} + C_{4,10} + C_{5,6} + C_{5,8} + C_{5,9}$
   $= 0.25+1+0.25+1.25+3$
   $= 5.75$

   b) $T_A = 8 + 19 + 8 + 5 + 7 = 47$
   $T_B = 19 + 5 + 5 + 5 + 5 = 39$
   Since $47 > 45$, therefore, not admissible.

   c) $T = 1 + 0.25 + 0.25 + 0.5 + 0.25 + 1 + 1 = 4.25$
   $g = 5.75 – 4.25 = 1.5$

   d) $T_A = 8+8+5+7+5+5=38$
   $T_B = 19+19+5+5=48$
   $48 > 45$, not admissible

   e) New partition: A={1,2,3,4,10} B={5,6,7,8,9}
   $T = 0.5+0.75+0.25+1.25+0.5=3.25$
   $T_A = 8+19+8+5+5=45$
   $T_B = 7+19+5+5+5=41$
   45<=P, which is 45, thus admissible
   41< P, too, admissible
   G=4.25-3.25=1

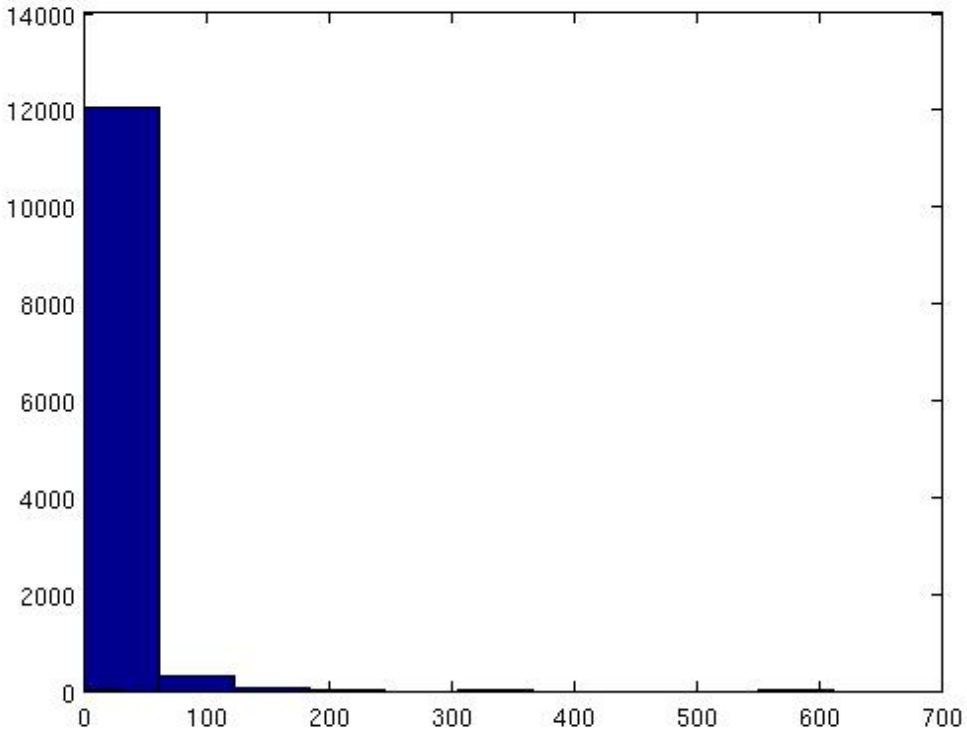
2. Changed the number of metal layers “topmetal” in setup.tcl to 10 and decreased the density in run_init.tcl to 0.35

3. By Donath’s method, for p=3/4:
   C=14516-2907=11609
   davg=128/C^0.5
   $L_{avg} = 13.4316$

   By Donath’s method, for p=3/4:
   C=14516-2907=11609
   davg=128/C^0.5
   $L_{avg} = 6.11912$

   From Matlab, the value is 7.7427

   Histogram is in following page


14000
12000
10000
8000
6000
4000
2000
0
0
100
200
300
400
500
600
700