

Lampiran 2. *Syntax Kohonen Self Organizing Maps Program R*

```
#mengaktifkan package kohonen
library(kohonen)

#input data
datalongsor
longsor <- datalongsor[,-1]
View(longsor)

#scaling data
longsor
scale(longsor)
dim(longsor)
str(longsor)

#algoritma SOM
grid <- somgrid(xdim=5, ydim=5, topo="hexagonal")
som.longsor <- som(scale(longsor), grid=somgrid(xdim=5, ydim=5,
topo="hexagonal"))
str(som.longsor)
plot(som.longsor, type="mapping")
som.longsor$grid$pts
som.longsor$unit.classif
plot(som.longsor)
som.longsor$codes[[1]]
dist(som.longsor$codes[[1]])

#hclust to 4 cluster
hclust(dist(som.longsor$codes[[1]]))
peta<-cutree(hclust(dist(som.longsor$codes[[1]])),4)

#menampilkan plot
plot(peta)
plot(som.longsor,type="codes",bgcol=rainbow(5)[peta])
add.cluster.boundaries(som.longsor,peta)
kelompok <- data.frame(id=datalongsor$Wilayah,
cluster=peta[som.longsor$unit.classif])
kelompok
View(kelompok)
```