R Program To Create Plots For Perinasal EDA Signal (pp)

```
library(gdata)
library(xlsx)
path1 = "C:/Users/Devarsh Dani/Desktop/UH/Spring 2017/Statistical methods in research/HW1/Other
Study Data"
pdf("C:/Users/Devarsh Dani/Desktop/PPAllSessions.pdf", height = 15, width = 15)
par(mfrow = c(8,1))
setwd(path1)
dir = grep("T???/??BL", list.dirs(), value = TRUE)
unlink(path1)
vectorForgraphx = NULL
vectorForgraphy = NULL
n=0
i=1
for(i in 1:length(dir)) {
 setwd(dir[i])
 getwd()
 fil = list.files(pattern = ".pp")
 if(identical(fil, character(0))) {
  setwd("../..")
  unlink(dir[i])
  next
 }
 reading = read.xlsx(fil, sheetIndex = 1,colIndex = 2:4)
 names(reading)[1] <- "Time"
 names(reading)[3] <- "PP"
 reading = reading[order(reading$Time), , drop = FALSE]
 reading$PP <- as.numeric(as.character(reading$PP))
 reading$Time <- as.numeric(as.character(reading$Time))
 reading = reading[order(reading$Time), , drop = FALSE]
 #reading = reading[-1,]
 #row.names(reading) <- 1:nrow(reading)
 yvector = reading[,"PP"]
 xvector = reading[,"Time"]
 xvector = c(xvector,NA)
 yvector = c(yvector,NA)
 #finalx = sort(xvector,decreasing = FALSE)
 vectorForgraphx = append(vectorForgraphx, xvector)
 vectorForgraphy = append(vectorForgraphy, yvector)
 n = n+1
 setwd("../..")
 unlink(dir[i])
 #i=i+1
}
plot(vectorForgraphx[seq(1, length(vectorForgraphx), by=1)], vectorForgraphy[seq(1,
length(vectorForgraphy), by=1)], lty = 1, type = "l", xlab = "Time[in sec]", ylab = "NR Perinasal [in ∘C2]",
main = "Noise Reduced Perinasal signal plotting for all BL")
legend("topright",legend = paste("n = ",n))
```

R Program To Create Plots For Perinasal EDA Signal (pp)

```
setwd(path1)
dir = grep("T???/??PD", list.dirs(), value = TRUE)
unlink(path1)
vectorForgraphx = NULL
vectorForgraphy = NULL
n=0
i=1
for(i in 1:length(dir)) {
  setwd(dir[i])
  getwd()
  fil = list.files(pattern = ".pp")
  if(identical(fil, character(0))) {
    setwd("../..")
    unlink(dir[i])
    next
  }
  reading = read.xlsx(fil, sheetIndex = 1,colIndex = 2:4)
  names(reading)[1] <- "Time"
  names(reading)[3] <- "PP"
  reading = reading[order(reading$Time), , drop = FALSE]
  reading$PP <- as.numeric(as.character(reading$PP))
  reading$Time <- as.numeric(as.character(reading$Time))
  reading = reading[order(reading$Time), , drop = FALSE]
  #reading = reading[-1,]
  #row.names(reading) <- 1:nrow(reading)
  yvector = reading[,"PP"]
  xvector = reading[,"Time"]
  xvector = c(xvector,NA)
  yvector = c(yvector,NA)
  #finalx = sort(xvector,decreasing = FALSE)
  vectorForgraphx = append(vectorForgraphx, xvector)
  vectorForgraphy = append(vectorForgraphy, yvector)
  n = n+1
  setwd("../..")
  unlink(dir[i])
  #i=i+1
}
plot(vectorForgraphx[seq(1, length(vectorForgraphx), by=1)], vectorForgraphy[seq(1,
length(vectorForgraphy), by=1)], lty = 1, type = "l", xlab = "Time[in sec]", ylab = "NR Perinasal [in ∘C2]",
main = "Noise Reduced Perinasal signal plotting for all PD")
legend("topright",legend = paste("n = ",n))

setwd(path1)
dir = grep("T???/??RD", list.dirs(), value = TRUE)
unlink(path1)
vectorForgraphx = NULL
vectorForgraphy = NULL
n=0
```

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```
i=1
for(i in 1:length(dir)) {
  setwd(dir[i])
  getwd()
  fil = list.files(pattern = ".pp")
  if(identical(fil, character(0))) {
    setwd("../..")
    unlink(dir[i])
    next
  }
  reading = read.xlsx(fil, sheetIndex = 1,colIndex = 2:4)
  names(reading)[1] <- "Time"
  names(reading)[3] <- "PP"
  reading = reading[order(reading$Time), , drop = FALSE]
  reading$PP <- as.numeric(as.character(reading$PP))
  reading$Time <- as.numeric(as.character(reading$Time))
  reading = reading[order(reading$Time), , drop = FALSE]
  #reading = reading[-1,]
  #row.names(reading) <- 1:nrow(reading)
  yvector = reading[,"PP"]
  xvector = reading[,"Time"]
  xvector = c(xvector,NA)
  yvector = c(yvector,NA)
  #finalx = sort(xvector,decreasing = FALSE)
  vectorForgraphx = append(vectorForgraphx, xvector)
  vectorForgraphy = append(vectorForgraphy, yvector)
  n = n+1
  setwd("../..")
  unlink(dir[i])
  #i=i+1
}
plot(vectorForgraphx[seq(1, length(vectorForgraphx), by=1)], vectorForgraphy[seq(1,
length(vectorForgraphy), by=1)], lty = 1, type = "l", xlab = "Time[in sec]", ylab = "NR Perinasal [in ∘C2]",
main = "Noise Reduced Perinasal signal plotting for all RD")
legend("topright",legend = paste("n = ",n))

setwd(path1)
dir = grep("T???/??ND", list.dirs(), value = TRUE)
unlink(path1)
vectorForgraphx = NULL
vectorForgraphy = NULL
n=0
i=1
for(i in 1:length(dir)) {
  setwd(dir[i])
  getwd()
  fil = list.files(pattern = ".pp")
  if(identical(fil, character(0))) {
```

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```
  setwd("../..")
  unlink(dir[i])
  next
 }
 reading = read.xlsx(fil, sheetIndex = 1,colIndex = 2:4)
 names(reading)[1] <- "Time"
 names(reading)[3] <- "PP"
 reading = reading[order(reading$Time), , drop = FALSE]
 reading$PP <- as.numeric(as.character(reading$PP))
 reading$Time <- as.numeric(as.character(reading$Time))
 reading = reading[order(reading$Time), , drop = FALSE]
 #reading = reading[-1,]
 #row.names(reading) <- 1:nrow(reading)
 yvector = reading[,"PP"]
 xvector = reading[,"Time"]
 xvector = c(xvector,NA)
 yvector = c(yvector,NA)
 #finalx = sort(xvector,decreasing = FALSE)
 vectorForgraphx = append(vectorForgraphx, xvector)
 vectorForgraphy = append(vectorForgraphy, yvector)
 n = n+1
 setwd("../..")
 unlink(dir[i])
 #i=i+1
}
plot(vectorForgraphx[seq(1, length(vectorForgraphx), by=1)], vectorForgraphy[seq(1,
length(vectorForgraphy), by=1)], lty = 1, type = "l", xlab = "Time[in sec]", ylab = "NR Perinasal [in ∘C2]",
main = "Noise Reduced Perinasal signal plotting for all ND")
legend("topright",legend = paste("n = ",n))

setwd(path1)
dir = grep("T???/??CD", list.dirs(), value = TRUE)
unlink(path1)
vectorForgraphx = NULL
vectorForgraphy = NULL
n=0
i=1
for(i in 1:length(dir)) {
 setwd(dir[i])
 getwd()
 fil = list.files(pattern = ".pp")
 if(identical(fil, character(0))) {
  setwd("../..")
  unlink(dir[i])
  next
 }
 reading = read.xlsx(fil, sheetIndex = 1,colIndex = 2:4)
 names(reading)[1] <- "Time"
```

R Program To Create Plots For Perinasal EDA Signal (pp)

```
  names(reading)[3] <- "PP"
  reading = reading[order(reading$Time), , drop = FALSE]
  reading$PP <- as.numeric(as.character(reading$PP))
  reading$Time <- as.numeric(as.character(reading$Time))
  reading = reading[order(reading$Time), , drop = FALSE]
  #reading = reading[-1,]
  #row.names(reading) <- 1:nrow(reading)
  yvector = reading[,"PP"]
  xvector = reading[,"Time"]
  xvector = c(xvector,NA)
  yvector = c(yvector,NA)
  #finalx = sort(xvector,decreasing = FALSE)
  vectorForgraphx = append(vectorForgraphx, xvector)
  vectorForgraphy = append(vectorForgraphy, yvector)
  n = n+1
  setwd("../..")
  unlink(dir[i])
  #i=i+1
}
plot(vectorForgraphx[seq(1, length(vectorForgraphx), by=1)], vectorForgraphy[seq(1,
length(vectorForgraphy), by=1)], lty = 1, type = "l", xlab = "Time[in sec]", ylab = "NR Perinasal [in ∘C2]",
main = "Noise Reduced Perinasal signal plotting for all CD")
legend("topright",legend = paste("n = ",n))

setwd(path1)
dir = grep("T???/??ED", list.dirs(), value = TRUE)
unlink(path1)
vectorForgraphx = NULL
vectorForgraphy = NULL
n=0
i=1
for(i in 1:length(dir)) {
  setwd(dir[i])
  getwd()
  fil = list.files(pattern = ".pp")
  if(identical(fil, character(0))) {
    setwd("../..")
    unlink(dir[i])
    next
  }
  reading = read.xlsx(fil, sheetIndex = 1,colIndex = 2:4)
  names(reading)[1] <- "Time"
  names(reading)[3] <- "PP"
  reading = reading[order(reading$Time), , drop = FALSE]
  reading$PP <- as.numeric(as.character(reading$PP))
  reading$Time <- as.numeric(as.character(reading$Time))
  reading = reading[order(reading$Time), , drop = FALSE]
  #reading = reading[-1,]
```

R Program To Create Plots For Perinasal EDA Signal (pp)

```
 #row.names(reading) <- 1:nrow(reading)
 yvector = reading[,"PP"]
 xvector = reading[,"Time"]
 xvector = c(xvector,NA)
 yvector = c(yvector,NA)
 #finalx = sort(xvector,decreasing = FALSE)
 vectorForgraphx = append(vectorForgraphx, xvector)
 vectorForgraphy = append(vectorForgraphy, yvector)
 n = n+1
 setwd("../..")
 unlink(dir[i])
 #i=i+1
}
plot(vectorForgraphx[seq(1, length(vectorForgraphx), by=1)], vectorForgraphy[seq(1,
length(vectorForgraphy), by=1)], lty = 1, type = "l", xlab = "Time[in sec]", ylab = "NR Perinasal [in ∘C2]",
main = "Noise Reduced Perinasal signal plotting for all ED")
legend("topright",legend = paste("n = ",n))

setwd(path1)
dir = grep("T???/??MD", list.dirs(), value = TRUE)
unlink(path1)
vectorForgraphx = NULL
vectorForgraphy = NULL
n=0
i=1
for(i in 1:length(dir)) {
 setwd(dir[i])
 getwd()
 fil = list.files(pattern = ".pp")
 if(identical(fil, character(0))) {
  setwd("../..")
  unlink(dir[i])
  next
 }
 reading = read.xlsx(fil, sheetIndex = 1,colIndex = 2:4)
 names(reading)[1] <- "Time"
 names(reading)[3] <- "PP"
 reading = reading[order(reading$Time), , drop = FALSE]
 reading$PP <- as.numeric(as.character(reading$PP))
 reading$Time <- as.numeric(as.character(reading$Time))
 reading = reading[order(reading$Time), , drop = FALSE]
 #reading = reading[-1,]
 #row.names(reading) <- 1:nrow(reading)
 yvector = reading[,"PP"]
 xvector = reading[,"Time"]
 xvector = c(xvector,NA)
 yvector = c(yvector,NA)
 #finalx = sort(xvector,decreasing = FALSE)
```

R Program To Create Plots For Perinasal EDA Signal (pp)

```
 vectorForgraphx = append(vectorForgraphx, xvector)
 vectorForgraphy = append(vectorForgraphy, yvector)
 n = n+1
 setwd("../..")
 unlink(dir[i])
 #i=i+1
}
plot(vectorForgraphx[seq(1, length(vectorForgraphx), by=1)], vectorForgraphy[seq(1,
length(vectorForgraphy), by=1)], lty = 1, type = "l", xlab = "Time[in sec]", ylab = "NR Perinasal [in ∘C2]",
main = "Noise Reduced Perinasal signal plotting for all MD")
legend("topright",legend = paste("n = ",n))

setwd(path1)
dir = grep("T???/??FD", list.dirs(), value = TRUE)
unlink(path1)
vectorForgraphx = NULL
vectorForgraphy = NULL
n=0
i=1
for(i in 1:length(dir)) {
 setwd(dir[i])
 getwd()
 fil = list.files(pattern = ".pp")
 if(identical(fil, character(0))) {
  setwd("../..")
  unlink(dir[i])
  next
 }
 reading = read.xlsx(fil, sheetIndex = 1,colIndex = 2:4)
 names(reading)[1] <- "Time"
 names(reading)[3] <- "PP"
 reading = reading[order(reading$Time), , drop = FALSE]
 reading$PP <- as.numeric(as.character(reading$PP))
 reading$Time <- as.numeric(as.character(reading$Time))
 reading = reading[order(reading$Time), , drop = FALSE]
 #reading = reading[-1,]
 #row.names(reading) <- 1:nrow(reading)
 yvector = reading[,"PP"]
 xvector = reading[,"Time"]
 xvector = c(xvector,NA)
 yvector = c(yvector,NA)
 #finalx = sort(xvector,decreasing = FALSE)
 vectorForgraphx = append(vectorForgraphx, xvector)
 vectorForgraphy = append(vectorForgraphy, yvector)
 n = n+1
 setwd("../..")
 unlink(dir[i])
 #i=i+1
```

R Program To Create Plots For Perinasal EDA Signal (pp)

```
}
plot(vectorForgraphx[seq(1, length(vectorForgraphx), by=1)], vectorForgraphy[seq(1,
length(vectorForgraphy), by=1)], lty = 1, type = "l", xlab = "Time[in sec]", ylab = "NR Perinasal [in ∘C2]",
main = "Noise Reduced Perinasal signal plotting for all FD")
legend("topright",legend = paste("n = ",n))

dev.off()
```