

Section 3.4.3 - Acoustic Fire Extinguisher

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```
#####  
# Setup  
  
# Loading allocation results  
load(file="results/allocations_AFE.RData")  
load(file="../../../useCases/acousticFireExtinguisher/data/AFE_data.RData")  
  
# Plotting colors  
coul <- brewer.pal(6, "Dark2")  
coul[3]="cornflowerblue"  
  
AFE.names=colnames(fire[, -7])
```

Acoustic Fire Extinguisher NN Model

```
par(mar=c(5,4.5,1,1),  
    mfrow=c(1,2))  
  
a=barplot(height=c(Shap.AFE$Shap)+0.005,  
          names=AFE.names,  
          col=coul,  
          ylim=c(0,0.3),  
          ylab="Shapley Effects",  
          cex.names=1,  
          cex.lab=1,  
          xaxt="n",  
          border=F)  
text(a, par("usr")[3], labels = AFE.names , srt = 60, adj = c(1.1,1.1), xpd = TRUE, cex=1)  
perc<-paste(round(Shap.AFE$Shap*100, 2), "%", sep="")  
text(a, par("usr")[3]+.5, y=(Shap.AFE$Shap+0.02), labels = perc, xpd = TRUE, cex=0.9)  
  
a=barplot(height=c(PME.AFE$PME)+0.005,  
          names=AFE.names,  
          col=coul,  
          ylim=c(0,0.3),  
          ylab="PME",  
          cex.names=1,  
          cex.lab=1,  
          xaxt="n",
```

```

border=F)
text(a, par("usr")[3], labels = AFE.names , srt = 60, adj = c(1.1,1.1), xpd = TRUE, cex=1)
perc<-paste(round(PME.AFE$PME*100, 2), "%", sep="")
text(a, par("usr")[3]+.5, y=(PME.AFE$PME+0.02), labels = perc, xpd = TRUE, cex=0.9)

```

