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123 def memberlimits(PerfScore, Weight):
124     L_1=(PerfScore[1]-PerfScore[0])/(Weight[1]-Weight[0])
125     R_1=(PerfScore[3]-PerfScore[2])/(Weight[3]-Weight[2])
126     L_2=Weight[0]*(PerfScore[1]-PerfScore[0])+PerfScore[0]*(Weight[1]-Weight[1])
127     R_2=-1*(Weight[3]*(PerfScore[3]-PerfScore[2])+PerfScore[0]*(Weight[3]-Weight[2]))
128     return(L_1, L_2, R_1, R_2)
129
130 DSL1, DSL2, DSL3, DSL4=memberlimits(DesalSafe, Weights[0])
131 DFL1, DFL2, DFL3, DFL4=memberlimits(DesalFluc, Weights[1])
132 DPL1, DPL2, DPL3, DPL4=memberlimits(DesalFluc, Weights[2])
133 HSL1, HSL2, HSL3, HSL4=memberlimits(HProdSafe, Weights[0])
134 HFL1, HFL2, HFL3, HFL4=memberlimits(HProdFluc, Weights[1])
135 HPL1, HPL2, HPL3, HPL4=memberlimits(HProdProf, Weights[2])
136 SSL1, SSL2, SSL3, SSL4=memberlimits(SynFuelSafe, Weights[0])
137 SFL1, SFL2, SFL3, SFL4=memberlimits(SynFuelFluc, Weights[1])
138 DPL1, DPL2, DPL3, DPL4=memberlimits(SynFuelFluc, Weights[2])
139
140 DesalL1 = DSL1+DFL1+DPL1
141 DesalL2 = DSL2+DFL2+DPL2
142 DesalR1 =
143
144 def AddUp
145
146
147
148
149 #DesalL1, DesalL2, DesalR1, DesalR2 = memberlimits()
150
151 DesalU=Utility(DesalSafe, DesalFluc, DesalProf)
152 HProdU= Utility(HProdSafe, HProdFluc, HProdProf)
153 SynFuelU=Utility(SynFuelSafe, SynFuelFluc, SynFuelProf)
154
155 #Save the PerformanceScores to a file
156 with open('PerformanceScores_new.csv', 'w') as myfile:
157     out=csv.writer(myfile)
158     out.writerow('Safety')
159     out.writerow(SafetyPS[0])
160     out.writerow(SafetyPS[1])
161     out.writerow(SafetyPS[2])
162     out.writerow('\nFluctuate')
163     out.writerow(FlucPS[0])
164     out.writerow(FlucPS[1])
165     out.writerow(FlucPS[2])
166     out.writerow('\nProfitability')
167     out.writerow(ProfitPS[0])
168     out.writerow(ProfitPS[1])
169     out.writerow(ProfitPS[2])
170     out.writerow('\nFuzzy Weights')
171     out.writerow(Weights[0])
172     out.writerow(Weights[1])
173     out.writerow(Weights[2])
174 myfile.close()
175
176 with open('Utility_2.csv', 'w') as ufile:
177     output = csv.writer(ufile)
178     output.writerow('Desalination')
179     output.writerow(Utility(DesalSafe, DesalFluc, DesalProf))
180     output.writerow("Hydrogen")
181     output.writerow(Utility(HProdSafe, HProdFluc, HProdProf))
182     output.writerow("Synthetic Fuels")
183     output.writerow(Utility(SynFuelSafe, SynFuelFluc, SynFuelProf))
184
185 ufile.close()
186
187
188
189

```