# Criteria Analysis

## Engineer 1

Pairwise Comparison Matrix:  
[[1. 3. 3. 3. 3. ]  
 [0.333 1. 3. 3. 3. ]  
 [0.333 0.333 1. 3. 3. ]  
 [0.333 0.333 0.333 1. 3. ]  
 [0.333 0.333 0.333 0.333 1. ]]

Weights:  
[0.4, 0.258, 0.166, 0.107, 0.069]

Max Eigenvalue: 5.499

Consistency Index (CI): 0.125

Consistency Ratio (CR): 0.111

Random Index (RI): 1.12

## Engineer 2

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1. ]  
 [1. 1. 1. 1. 3. ]  
 [1. 1. 1. 3. 3. ]  
 [1. 1. 0.333 1. 3. ]  
 [1. 0.333 0.333 0.333 1. ]]

Weights:  
[0.189, 0.226, 0.297, 0.189, 0.099]

Max Eigenvalue: 5.299

Consistency Index (CI): 0.075

Consistency Ratio (CR): 0.067

Random Index (RI): 1.12

## Engineer 3

Pairwise Comparison Matrix:  
[[1. 1. 3. 3. 1. ]  
 [1. 1. 9. 3. 5. ]  
 [0.333 0.111 1. 1. 3. ]  
 [0.333 0.333 1. 1. 9. ]  
 [1. 0.2 0.333 0.111 1. ]]

Weights:  
[0.25, 0.393, 0.1, 0.184, 0.073]

Max Eigenvalue: 6.268

Consistency Index (CI): 0.317

Consistency Ratio (CR): 0.283

Random Index (RI): 1.12

## Engineer 4

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 5

Pairwise Comparison Matrix:  
[[1. 0.111 0.111 0.111 0.111]  
 [9.001 1. 1. 1. 3. ]  
 [9.001 1. 1. 1. 3. ]  
 [9.001 1. 1. 1. 3. ]  
 [9.001 0.333 0.333 0.333 1. ]]

Weights:  
[0.026, 0.283, 0.283, 0.283, 0.125]

Max Eigenvalue: 5.151

Consistency Index (CI): 0.038

Consistency Ratio (CR): 0.034

Random Index (RI): 1.12

## Engineer 6

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 7

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 5. ]  
 [1. 1. 5. 3. 3. ]  
 [1. 0.2 1. 3. 7. ]  
 [1. 0.333 0.333 1. 7. ]  
 [0.2 0.333 0.143 0.143 1. ]]

Weights:  
[0.202, 0.386, 0.216, 0.149, 0.046]

Max Eigenvalue: 5.843

Consistency Index (CI): 0.211

Consistency Ratio (CR): 0.188

Random Index (RI): 1.12

## Engineer 8

Pairwise Comparison Matrix:  
[[1. 5. 1. 1. 5. ]  
 [0.2 1. 1. 0.2 5. ]  
 [1. 1. 1. 1. 5. ]  
 [1. 5. 1. 1. 5. ]  
 [0.2 0.2 0.2 0.2 1. ]]

Weights:  
[0.308, 0.125, 0.216, 0.308, 0.043]

Max Eigenvalue: 5.434

Consistency Index (CI): 0.108

Consistency Ratio (CR): 0.097

Random Index (RI): 1.12

## Engineer 9

Pairwise Comparison Matrix:  
[[1. 1. 3. 5. 5. ]  
 [1. 1. 3. 1. 3. ]  
 [0.333 0.333 1. 5. 5. ]  
 [0.2 1. 0.2 1. 3. ]  
 [0.2 0.333 0.2 0.333 1. ]]

Weights:  
[0.36, 0.265, 0.213, 0.111, 0.05]

Max Eigenvalue: 5.765

Consistency Index (CI): 0.191

Consistency Ratio (CR): 0.171

Random Index (RI): 1.12

## Engineer 10

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 11

Pairwise Comparison Matrix:  
[[1. 1. 1. 5. 7. ]  
 [1. 1. 1. 5. 3. ]  
 [1. 1. 1. 7. 5. ]  
 [0.2 0.2 0.143 1. 3. ]  
 [0.143 0.333 0.2 0.333 1. ]]

Weights:  
[0.302, 0.264, 0.311, 0.073, 0.051]

Max Eigenvalue: 5.276

Consistency Index (CI): 0.069

Consistency Ratio (CR): 0.062

Random Index (RI): 1.12

## Engineer 12

Pairwise Comparison Matrix:  
[[1. 0.111 0.143 0.111 0.2 ]  
 [9.001 1. 0.143 0.2 0.2 ]  
 [6.998 6.998 1. 7. 7. ]  
 [9.001 5. 0.143 1. 7. ]  
 [5. 5. 0.143 0.143 1. ]]

Weights:  
[0.024, 0.067, 0.559, 0.246, 0.104]

Max Eigenvalue: 6.527

Consistency Index (CI): 0.382

Consistency Ratio (CR): 0.341

Random Index (RI): 1.12

## Engineer 13

Pairwise Comparison Matrix:  
[[1. 5. 5. 5. 5. ]  
 [0.2 1. 3. 5. 7. ]  
 [0.2 0.333 1. 5. 3. ]  
 [0.2 0.2 0.2 1. 5. ]  
 [0.2 0.143 0.333 0.2 1. ]]

Weights:  
[0.504, 0.24, 0.139, 0.077, 0.04]

Max Eigenvalue: 5.918

Consistency Index (CI): 0.23

Consistency Ratio (CR): 0.205

Random Index (RI): 1.12

## Engineer 14

Pairwise Comparison Matrix:  
[[1. 5. 5. 1. 1. ]  
 [0.2 1. 1. 1. 5. ]  
 [0.2 1. 1. 1. 1. ]  
 [1. 1. 1. 1. 3. ]  
 [1. 0.2 1. 0.333 1. ]]

Weights:  
[0.37, 0.194, 0.116, 0.204, 0.117]

Max Eigenvalue: 6.06

Consistency Index (CI): 0.265

Consistency Ratio (CR): 0.237

Random Index (RI): 1.12

## Engineer 15

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1. ]  
 [1. 1. 3. 3. 3. ]  
 [1. 0.333 1. 3. 3. ]  
 [1. 0.333 0.333 1. 3. ]  
 [1. 0.333 0.333 0.333 1. ]]

Weights:  
[0.182, 0.352, 0.227, 0.146, 0.094]

Max Eigenvalue: 5.499

Consistency Index (CI): 0.125

Consistency Ratio (CR): 0.111

Random Index (RI): 1.12

## Engineer 16

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1. ]  
 [1. 1. 1. 5. 1. ]  
 [1. 1. 1. 1. 1. ]  
 [1. 0.2 1. 1. 1. ]  
 [1. 1. 1. 1. 1. ]]

Weights:  
[0.187, 0.295, 0.187, 0.143, 0.187]

Max Eigenvalue: 5.337

Consistency Index (CI): 0.084

Consistency Ratio (CR): 0.075

Random Index (RI): 1.12

## Engineer 17

Pairwise Comparison Matrix:  
[[1. 1. 1. 5. 3. ]  
 [1. 1. 1. 1. 3. ]  
 [1. 1. 1. 1. 3. ]  
 [0.2 1. 1. 1. 1. ]  
 [0.333 0.333 0.333 1. 1. ]]

Weights:  
[0.326, 0.222, 0.222, 0.139, 0.091]

Max Eigenvalue: 5.329

Consistency Index (CI): 0.082

Consistency Ratio (CR): 0.073

Random Index (RI): 1.12

## Engineer 18

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 19

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 20

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 21

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 22

Pairwise Comparison Matrix:  
[[1. 1. 0.111 1. 0.111]  
 [1. 1. 1. 9. 9. ]  
 [9.001 1. 1. 9. 1. ]  
 [1. 0.111 0.111 1. 0.111]  
 [9.001 0.111 1. 9.001 1. ]]

Weights:  
[0.081, 0.413, 0.264, 0.029, 0.213]

Max Eigenvalue: 7.12

Consistency Index (CI): 0.53

Consistency Ratio (CR): 0.473

Random Index (RI): 1.12

## Engineer 23

Pairwise Comparison Matrix:  
[[1. 3. 5. 5. 5. ]  
 [0.333 1. 5. 5. 3. ]  
 [0.2 0.2 1. 3. 5. ]  
 [0.2 0.2 0.333 1. 5. ]  
 [0.2 0.333 0.2 0.2 1. ]]

Weights:  
[0.449, 0.285, 0.132, 0.087, 0.047]

Max Eigenvalue: 5.871

Consistency Index (CI): 0.218

Consistency Ratio (CR): 0.194

Random Index (RI): 1.12

## Engineer 24

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 25

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1. ]  
 [1. 1. 1. 1. 1. ]  
 [1. 1. 1. 3. 1. ]  
 [1. 1. 0.333 1. 1. ]  
 [1. 1. 1. 1. 1. ]]

Weights:  
[0.194, 0.194, 0.257, 0.161, 0.194]

Max Eigenvalue: 5.151

Consistency Index (CI): 0.038

Consistency Ratio (CR): 0.034

Random Index (RI): 1.12

## Engineer 26

Pairwise Comparison Matrix:  
[[1. 5. 5. 5. 5. ]  
 [0.2 1. 5. 5. 5. ]  
 [0.2 0.2 1. 5. 5. ]  
 [0.2 0.2 0.2 1. 5. ]  
 [0.2 0.2 0.2 0.2 1. ]]

Weights:  
[0.494, 0.26, 0.136, 0.072, 0.038]

Max Eigenvalue: 6.112

Consistency Index (CI): 0.278

Consistency Ratio (CR): 0.248

Random Index (RI): 1.12

## Engineer 27

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1. ]  
 [1. 1. 1. 1. 5. ]  
 [1. 1. 1. 1. 1. ]  
 [1. 1. 1. 1. 3. ]  
 [1. 0.2 1. 0.333 1. ]]

Weights:  
[0.188, 0.276, 0.188, 0.232, 0.117]

Max Eigenvalue: 5.329

Consistency Index (CI): 0.082

Consistency Ratio (CR): 0.073

Random Index (RI): 1.12

## Engineer 28

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 29

Pairwise Comparison Matrix:  
[[1. 3. 3. 3. 3. ]  
 [0.333 1. 3. 3. 1. ]  
 [0.333 0.333 1. 3. 1. ]  
 [0.333 0.333 0.333 1. 3. ]  
 [0.333 1. 1. 0.333 1. ]]

Weights:  
[0.388, 0.224, 0.147, 0.126, 0.115]

Max Eigenvalue: 5.737

Consistency Index (CI): 0.184

Consistency Ratio (CR): 0.164

Random Index (RI): 1.12

## Engineer 30

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 0.333]  
 [1. 1. 1. 1. 1. ]  
 [1. 1. 1. 1. 1. ]  
 [1. 1. 1. 1. 1. ]  
 [3. 1. 1. 1. 1. ]]

Weights:  
[0.161, 0.194, 0.194, 0.194, 0.257]

Max Eigenvalue: 5.151

Consistency Index (CI): 0.038

Consistency Ratio (CR): 0.034

Random Index (RI): 1.12

## Engineer 31

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 32

Pairwise Comparison Matrix:  
[[1. 0.111 0.143 0.143 0.143]  
 [9.001 1. 0.111 0.111 0.111]  
 [6.998 9.001 1. 0.111 0.143]  
 [6.998 9.001 9.001 1. 0.111]  
 [6.998 9.001 6.998 9.001 1. ]]

Weights:  
[0.022, 0.047, 0.108, 0.254, 0.569]

Max Eigenvalue: 7.352

Consistency Index (CI): 0.588

Consistency Ratio (CR): 0.525

Random Index (RI): 1.12

## Engineer 33

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 34

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]  
 [1. 1. 1. 1. 1.]]

Weights:  
[0.2, 0.2, 0.2, 0.2, 0.2]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Engineer 35

Pairwise Comparison Matrix:  
[[1. 1. 1. 1. 5. ]  
 [1. 1. 1. 1. 5. ]  
 [1. 1. 1. 1. 5. ]  
 [1. 1. 1. 1. 5. ]  
 [0.2 0.2 0.2 0.2 1. ]]

Weights:  
[0.238, 0.238, 0.238, 0.238, 0.048]

Max Eigenvalue: 5.0

Consistency Index (CI): -0.0

Consistency Ratio (CR): -0.0

Random Index (RI): 1.12

## Aggregate Results

Aggregate Pairwise Comparison Matrix:  
[[1. 0.974 0.905 1.048 1.144]  
 [1.027 1. 1. 1.076 1.521]  
 [1.105 1. 1. 1.207 1.447]  
 [0.955 0.929 0.828 1. 1.413]  
 [0.874 0.658 0.691 0.707 1. ]]

Aggregate Weights:  
[0.201, 0.22, 0.226, 0.2, 0.154]

Aggregate Max Eigenvalue: 5.008

Aggregate Consistency Index (CI): 0.002

Aggregate Consistency Ratio (CR): 0.002

Aggregate Random Index (RI): 1.12