# Criteria Analysis

## Engineer 1

Pairwise Comparison Matrix:  
[[1. 3. 3. ]  
 [0.33333333 1. 1. ]  
 [0.33333333 1. 1. ]]

Weights:  
[0.6 0.2 0.2]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 2

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 3

Pairwise Comparison Matrix:  
[[1. 5. 1. ]  
 [0.2 1. 9. ]  
 [1. 0.11111111 1. ]]

Weights:  
[0.50187629 0.35702409 0.14109962]

Max Eigenvalue: (4.838037526257318+0j)

Consistency Index (CI): (0.9190187631286588+0j)

Consistency Ratio (CR): (1.5845151088425153+0j)

Random Index (RI): 0.58

## Engineer 4

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 5

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 6

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 7

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 8

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 9

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

Weights:  
[0.45454545 0.45454545 0.09090909]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 10

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 11

Pairwise Comparison Matrix:  
[[1. 1. 1. ]  
 [1. 1. 3. ]  
 [1. 0.33333333 1. ]]

Weights:  
[0.31891713 0.45995809 0.22112479]

Max Eigenvalue: (3.135610844658042+0j)

Consistency Index (CI): (0.06780542232902098+0j)

Consistency Ratio (CR): (0.11690590056727757+0j)

Random Index (RI): 0.58

## Engineer 12

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 13

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

Weights:  
[0.68542168 0.23441092 0.08016741]

Max Eigenvalue: (3.294779494319272+0j)

Consistency Index (CI): (0.14738974715963593+0j)

Consistency Ratio (CR): (0.25412025372351027+0j)

Random Index (RI): 0.58

## Engineer 14

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 15

Pairwise Comparison Matrix:  
[[1. 3. 3. ]  
 [0.33333333 1. 3. ]  
 [0.33333333 0.33333333 1. ]]

Weights:  
[0.58415641 0.28083311 0.13501048]

Max Eigenvalue: (3.1356108446580464+0j)

Consistency Index (CI): (0.0678054223290232+0j)

Consistency Ratio (CR): (0.1169059005672814+0j)

Random Index (RI): 0.58

## Engineer 16

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

Weights:  
[0.51899557 0.30351045 0.17749399]

Max Eigenvalue: (3.294779494319275+0j)

Consistency Index (CI): (0.14738974715963749+0j)

Consistency Ratio (CR): (0.25412025372351293+0j)

Random Index (RI): 0.58

## Engineer 17

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 18

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 19

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 20

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

Weights:  
[0.71428571 0.14285714 0.14285714]

Max Eigenvalue: 3.000000000000001

Consistency Index (CI): 4.440892098500626e-16

Consistency Ratio (CR): 7.656710514656253e-16

Random Index (RI): 0.58

## Engineer 21

Pairwise Comparison Matrix:  
[[1. 5. 5. ]  
 [0.2 1. 3. ]  
 [0.2 0.33333333 1. ]]

Weights:  
[0.70071086 0.20211999 0.09716915]

Max Eigenvalue: (3.135610844658048+0j)

Consistency Index (CI): (0.06780542232902409+0j)

Consistency Ratio (CR): (0.11690590056728292+0j)

Random Index (RI): 0.58

## Engineer 22

Pairwise Comparison Matrix:  
[[1. 0.1111 9. ]  
 [9.00090009 1. 0.1111 ]  
 [0.11111111 9.00090009 1. ]]

Weights:  
[0.33332222 0.33333333 0.33334445]

Max Eigenvalue: (10.111703753584694+0j)

Consistency Index (CI): (3.555851876792347+0j)

Consistency Ratio (CR): (6.13077909791784+0j)

Random Index (RI): 0.58

## Engineer 23

Pairwise Comparison Matrix:  
[[1. 1. 3. ]  
 [1. 1. 1. ]  
 [0.33333333 1. 1. ]]

Weights:  
[0.45995809 0.31891713 0.22112479]

Max Eigenvalue: (3.1356108446580446+0j)

Consistency Index (CI): (0.06780542232902231+0j)

Consistency Ratio (CR): (0.11690590056727986+0j)

Random Index (RI): 0.58

## Engineer 24

Pairwise Comparison Matrix:  
[[1. 1. 3. ]  
 [1. 1. 3. ]  
 [0.33333333 0.33333333 1. ]]

Weights:  
[0.42857143 0.42857143 0.14285714]

Max Eigenvalue: 2.999999999999999

Consistency Index (CI): -4.440892098500626e-16

Consistency Ratio (CR): -7.656710514656253e-16

Random Index (RI): 0.58

## Engineer 25

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 26

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

Weights:  
[0.68542168 0.23441092 0.08016741]

Max Eigenvalue: (3.294779494319272+0j)

Consistency Index (CI): (0.14738974715963593+0j)

Consistency Ratio (CR): (0.25412025372351027+0j)

Random Index (RI): 0.58

## Engineer 27

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 28

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 29

Pairwise Comparison Matrix:  
[[1. 3. 1. ]  
 [0.33333333 1. 3. ]  
 [1. 0.33333333 1. ]]

Weights:  
[0.45995809 0.31891713 0.22112479]

Max Eigenvalue: (3.560833679821041+0j)

Consistency Index (CI): (0.28041683991052047+0j)

Consistency Ratio (CR): (0.48347731019055257+0j)

Random Index (RI): 0.58

## Engineer 30

Pairwise Comparison Matrix:  
[[1. 1. 3. ]  
 [1. 1. 3. ]  
 [0.33333333 0.33333333 1. ]]

Weights:  
[0.42857143 0.42857143 0.14285714]

Max Eigenvalue: 2.999999999999999

Consistency Index (CI): -4.440892098500626e-16

Consistency Ratio (CR): -7.656710514656253e-16

Random Index (RI): 0.58

## Engineer 31

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 32

Pairwise Comparison Matrix:  
[[1. 0.1111 0.1111 ]  
 [9.00090009 1. 0.1111 ]  
 [9.00090009 9.00090009 1. ]]

Weights:  
[0.04157954 0.17991623 0.77850422]

Max Eigenvalue: (3.5608869950418223+0j)

Consistency Index (CI): (0.28044349752091113+0j)

Consistency Ratio (CR): (0.48352327158777786+0j)

Random Index (RI): 0.58

## Engineer 33

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 34

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Engineer 35

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

Weights:  
[0.33333333 0.33333333 0.33333333]

Max Eigenvalue: 3.0

Consistency Index (CI): 0.0

Consistency Ratio (CR): 0.0

Random Index (RI): 0.58

## Aggregate Results

Aggregate Pairwise Comparison Matrix:  
[[1. 1.11944768 1.3118605 ]  
 [0.89329766 1. 1.17188192]  
 [0.76227617 0.85332829 1. ]]

Aggregate Weights:  
[0.37656645 0.33638593 0.28704763]

Aggregate Max Eigenvalue: 3.0

Aggregate Consistency Index (CI): 0.0

Aggregate Consistency Ratio (CR): 0.0

Aggregate Random Index (RI): 0.58