# Judgment Matrixes collection for using FAHP: 1

The 29 groups of fuzzy complementary matrix by comparing every two indexes in the first class after expert questionnaires

* Note: Each matrix was listed in the format like Tab. I. The shaded were the areas to be filled by 0.1～0.9.

Tab. I arrangement order of the 3 first class indexes

|  |  |  |  |
| --- | --- | --- | --- |
|  | Natural environment | Channel conditions | Traffic environment |
| Natural environment |  |  |  |
| Channel conditions |  |  |  |
| Traffic environment |  |  |  |

* The 29 individual fuzzy complementary matrix

 

# Judgment Matrixes collection for using FAHP: 2

The 29 groups of fuzzy complementary matrix by comparing every two indexes from the first 3 indexes in the second class after expert questionnaires

* Note: Each matrix was listed in the format like Tab. II. The shaded were the areas to be filled by 0.1～0.9.

Tab. II arrangement order of the first 3 indexes in the second class

|  |  |  |  |
| --- | --- | --- | --- |
|  | Visibility | Wind | Current |
| Visibility |  |  |  |
| Wind |  |  |  |
| Current |  |  |  |

* The 29 individual fuzzy complementary matrix



# Judgment Matrixes collection for using FAHP: 3

The 29 groups of fuzzy complementary matrix by comparing every two indexes from the second 3 indexes in the second class after expert questionnaires

* Note: Each matrix was listed in the format like Tab. III. The shaded were the areas to be filled by 0.1～0.9.

Tab. III arrangement order of the first 3 indexes in the second class

|  |  |  |  |
| --- | --- | --- | --- |
|  | Width | Depth | Cross |
| Width |  |  |  |
| Depth |  |  |  |
| Cross |  |  |  |

* The 29 individual fuzzy complementary matrix

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# Judgment Matrixes collection for using FAHP: 4

The 29 groups of fuzzy complementary matrix by comparing every two indexes from the third 3 indexes in the second class after expert questionnaires

* Note: Each matrix was listed in the format like Tab. IV. The shaded were the areas to be filled by 0.1～0.9.

Tab. IV arrangement order of the third 3 indexes in the second class

|  |  |  |  |
| --- | --- | --- | --- |
|  | Traffic flow | Obstacles | Navigation aids |
| Traffic flow |  |  |  |
| Obstacles |  |  |  |
| Navigation aids |  |  |  |

* The 29 individual fuzzy complementary matrix
* 

# Survey result of index risk level by Fuzzy Statistic

* Note: the number filled in Tab. V means the number of individuals who judged the specific index of the corresponding risk level.

Tab. V Survey result of index risk level by Fuzzy Statistic

|  |  |
| --- | --- |
| Indexes | Risk level |
| Low | Less low | Moderate | Less high | High |
| Visibility | 0 | 0 | 5 | 20 | 4 |
| Wind | 0 | 0 | 13 | 14 | 2 |
| Current | 7 | 18 | 3 | 1 | 0 |
| Width | 0 | 11 | 14 | 3 | 1 |
| Depth | 0 | 8 | 12 | 8 | 1 |
| Cross | 0 | 2 | 18 | 9 | 0 |
| Traffic flow | 0 | 2 | 12 | 14 | 1 |
| Obstacles | 0 | 6 | 11 | 11 | 1 |
| Navigation aids | 9 | 16 | 4 | 0 | 0 |