



Experiment No. 3

Singly Constrained Gravity Model (Origin)

October 30, 2021, 7:09 pm

Input Values :

Base Year Origin-Destination Cost Matrix			
Zone	1	2	3
1	3	10	15
2	10	5	10
3	15	10	5

Future Year Origins Total			
Zone	1	2	3
	10	15	8

Future Year Destinations Total			
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Zone	1	2	3
	7	16	10

Selected Impedance Functions : Exponential Function [$F_{ij} = e^{-(B)C_{ij}}$]

B value = 3

Calculations :

Impedance Matrix Calculations (Fij)			
Zone	1	2	3
1	0.0001	0	0
2	0	0	0
3	0	0	0



Dij*Fij				
Zone	1	2	3	Sum Dij*Fij
1	0.0009	0	0	0.0009
2	0	0	0	0
3	0	0	0	0

Interaction Probabilities (Pij)			
Zone	1	2	3
1	1	0	0
2	0	1	0
3	0	0	1

Final Result



Origin Destination Matrix Tij					
Zone	1	2	3	Sum $D_j \cdot F_{ij}$	Future year Origins Total
1	10	0	0	10	10
2	0	15	0	15	15
3	0	0	8	8	8