

**Shortest Path Problem**  
**Optimization of Transmission Systems**

**Solution of Case Study**

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**Iteration 3**

NODE TO NODE	LENGTH	CIRCUITS	PCM1	PCM2	PCM3	BRANCH COST	COST/CIRCUIT
1 - 2	8.0	432	0	0	1	8400	19.44
1 - 3	10.0	955	0	0	2	18800	19.69
2 - 5	7.0	945	0	0	2	15800	16.72
2 - 6	12.5	200	0	2	0	6070	30.35
3 - 4	5.0	955	0	0	2	13800	14.45
3 - 5	7.0	610	1	1	1	10860	17.80
3 - 6	10.0	610	1	1	1	12960	21.25
4 - 7	9.0	220	0	2	0	5020	22.82
4 - 8	6.0	740	1	2	1	12220	16.51
5 - 7	4.0	640	2	1	1	9360	14.62
5 - 8	7.0	500	1	0	1	8650	17.30
6 - 7	8.0	650	2	1	1	12360	19.02
6 - 9	6.5	452	0	0	1	12650	27.99
7 - 10	7.0	745	1	2	1	13070	17.54
8 - 10	3.0	1070	0	1	2	13410	12.53
9 - 10	9.0	520	2	0	1	10600	20.38
NETWORK COST					184030 M.U.		