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Objective		Proposed TOPSIS Algorithm method (p=2)	Global Criterion (GC) Method	Ideal Objective Vector	
				PIS	NIS
p <sup>LL</sup>	F <sub>1</sub> <sup>LL</sup>	23.230778	5.6678893	24	-2.4
	F <sub>2</sub> <sup>LL</sup>	59.465616	1.0033662	59.4615	4.3
p <sup>HL</sup>	F <sub>1</sub> <sup>HL</sup>	55.384638	13	55.38462	-1.4
	F <sub>2</sub> <sup>HL</sup>	62.0090232	15	62	5.333
p <sup>LH</sup>	F <sub>1</sub> <sup>LH</sup>	13	3	13	-3.4
	F <sub>2</sub> <sup>LH</sup>	55	11	58.4615	3.3333
p <sup>HH</sup>	F <sub>1</sub> <sup>HH</sup>	87.538418	13	87.5384	-0.4
	F <sub>2</sub> <sup>HH</sup>	66.076897	20	66.0769	6.3333

## 5. CONCLUSIONS

This paper extended TOPSIS approach to find compromise solutions for the multi-level multi-objective decision making problems with rough parameters in the objective functions (RMLMODM). A new hybrid algorithm based on modified TOPSIS method and the "Lower & Upper" approximations method for solving RMLMODM problems is proposed. Also, an illustrative numerical example is solved and compared the compromise solutions of the proposed algorithm with the vector of ideal solutions and the traditional global criterion method. The engineers and the scientists can apply the introduced hybrid algorithm to various practical RMLMODM problems to obtain numerical solutions

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