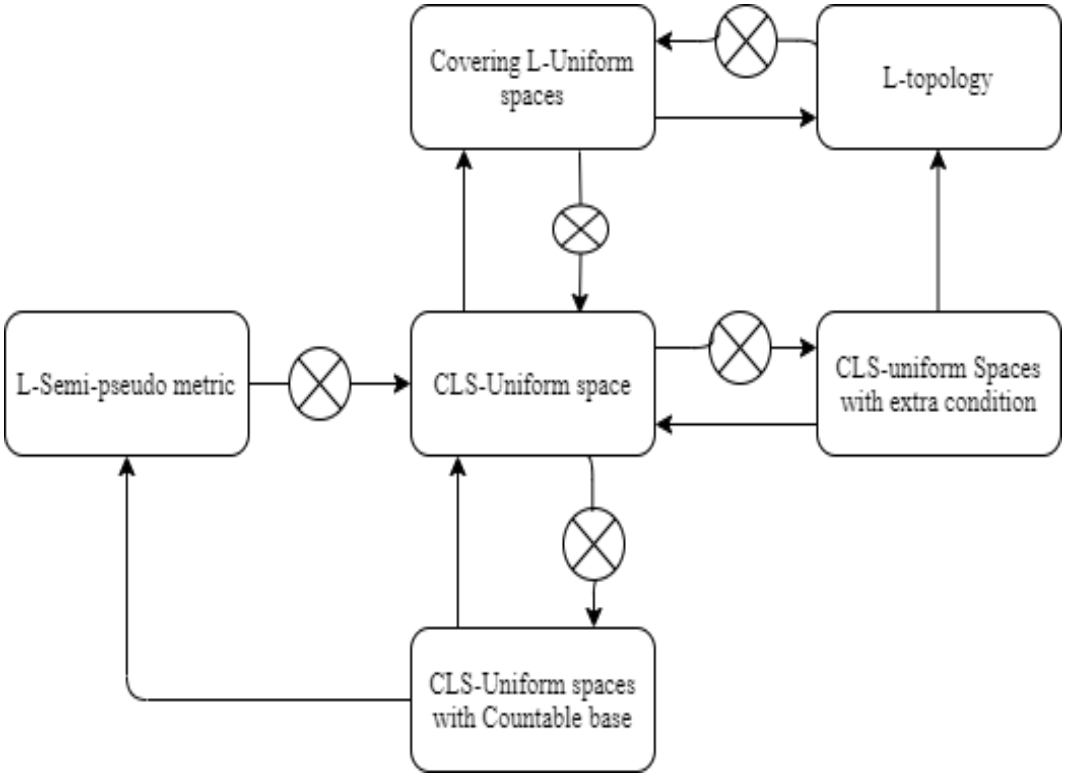
CHAPTER 7

CONCLUSION

7.1 Conclusion

In this thesis provides details on the core aspects of some generalisation of covering uniform structures viz, covering $L-$semi-uniform structure and covering $L-$ locally uniform structures in the $L-$Topological spaces in the category of **C-TOP**. They are studied in the context of other existing forms of generalised structures and in relation amongst themselves in attempt to provide a fairly complete framework consisting these generalised covering uniform structures.

In chapter 3, the notion of CLS-uniform space is introduced and various important uniform properties is investigated and some important results and their relation is given in the form of flowchart

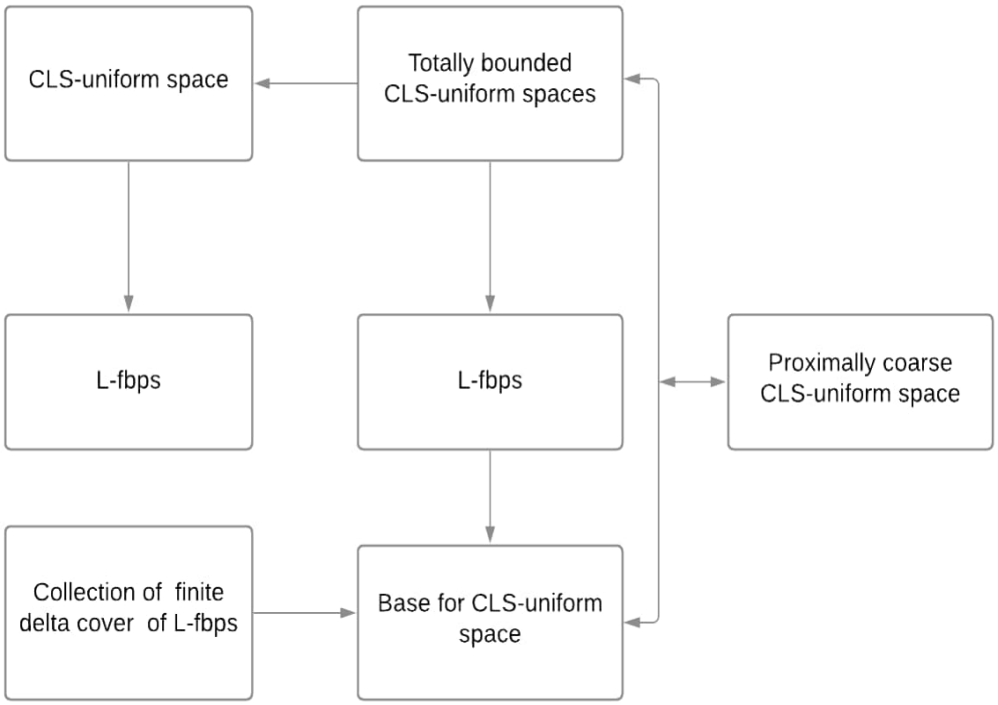


NB: Meaning of the above symbols and subsequent flowcharts

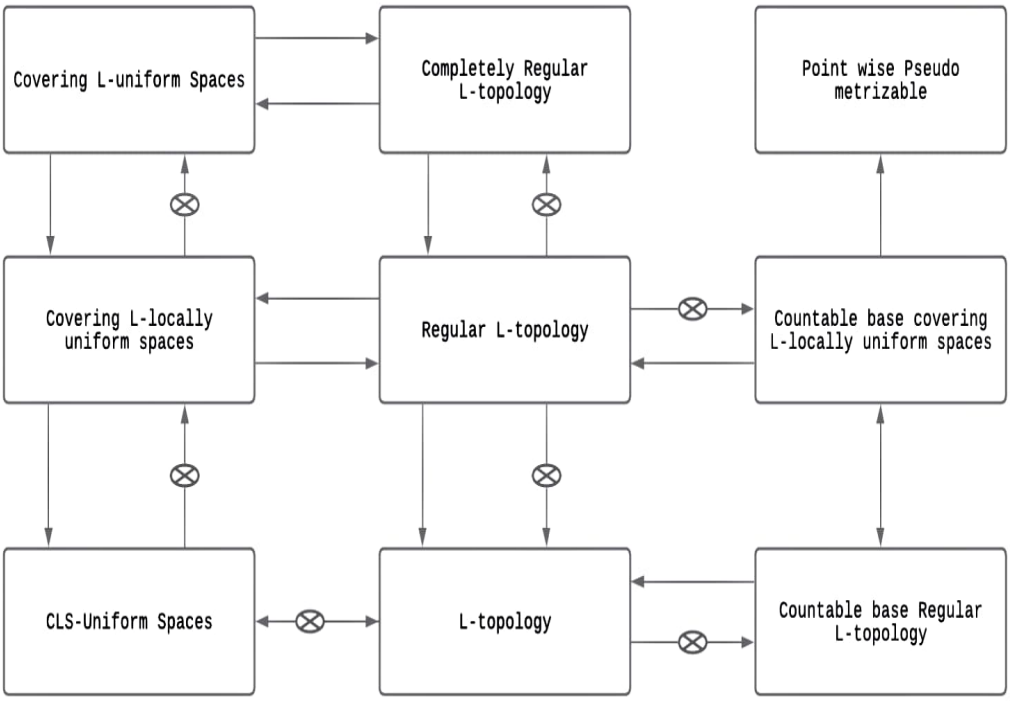
★ Implies

★ Does not implies

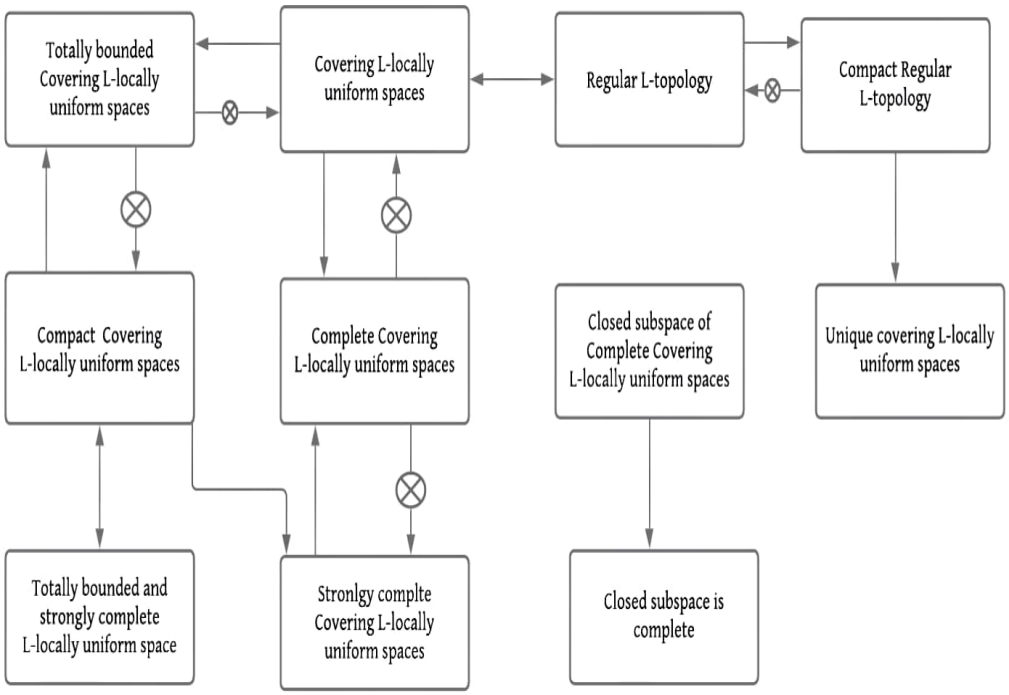
In chapter 4, the relation between the notion of CLS-uniform space and $L-$fuzzy basic proximity space and some important results and their relation is given in the form of flowchart



In chapter 5, the notion of covering $L-$locally uniform space is introduced and various important uniform properties is investigated and some important results and their relation is given in the form of flowchart



In chapter 6, the notion of further study on uniform properties is investigated in the context of covering $L-$locally uniform space, and some important results and their relation is given in the form of flowchart



The findings of the thesis established that various uniform properties can be upgraded to a realistic degree using suitable existing notions, but also many new results can be generated in the broad perspective of covering generalised uniform structures.

The generalised covering uniform structures presented in this thesis are found to satisfy the following relation:

Covering $L-$uniform space

$\Downarrow \not\Uparrow$

Covering $L-$locally uniform spaces

$\Downarrow \not\Uparrow$

CLS-uniform spaces

Various examples are provided to show that the converses are not true.

7.2 Future Research Scopes

The work carried out in this thesis opened up further study on different features of generalised covering uniform structures hat have been developed in this thesis.

Briefly summarised further study directions, as follows-

• A study can carried out categoric classification comparison in various covering generalised uniform structures.

• A study of their application in various field of the context covering generalised uniform structures.

• A study can carry out relations between generalised covering uniform spaces relations with Merotopological Spaces.

• A study of uniformities related to algebraic structures in the context of covering generalised uniform structures.

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