**Roll : 1907068**

**Paper 1: A Challenge Data-set and Effective Models for Aspect Based Sentiment Analysis**

**Summary:**This paper focuses on large scale multi aspect multi sentiment or MAMS data-set,a newly proposed idea where minimum two different aspects with two different polarities are present.

The methodology is given below:-

Embedding Layer-> Encoding Layer ->Primary Capsule Layer->Category Capsule Layer->CapsNet-BERT

In conclusion,the MAMS data-set helps to prevent aspect level sentiment classification degenerating into sentence level sentiment classification.The proposed capsule network outperforms other comparable methods.

**Paper 2 : Aspect-based Sentiment Analysis by Role Flipped Machine Reading Comprehension**

**Summary:**This paper brings a new idea where a unified ABSA task is investigated from the perspective of Machine Reading Comprehension(MRC).The proposed paradigm is Role flipped MRC or RF-MRC which predicts result based on aspect term extraction or opinion term extraction.

Methodology includes as follows :

The formulation of unified ABSA->Examine ABSA from MRC perspective ->Input Representations->Initial Terms Extraction->Role Flipped Module->Matching Module->Training

Compared methods includes pipeline model & unified model.

At last,this paper propose new RF-MRC paradigm where aspect terms or opinion terms are taken as queries and related terms are considered as answers.The output demonstrate the upper-hand of this framework.

**Paper 3 : Dual Graph Convolutional Networks for Aspect -based Sentiment Analysis**

**Summary :** In this paper,dual graph convolutional network is proposed to overcome the inaccuracy of the dependency parsing result & complexity of online reviews which uses graph neural networks in terms of aspect based sentiment analysis.

The DualGCN follows the below methodology:

Syntax-based GCN (SynGCN)-> Semantic-based GCN (SemGCN) -> Regularizer -> Loss Function

In conclusion, this paper tries to overcome the disadvantages of attention based and dependency based ABSA method & DualGCN model outperforms baselines according to benchmark data-sets.