MAIN PAPER TITLE: **An Overview of Text Summarization Techniques.**	**MEMBERS:** **Prasath k (61)** **Akhil Sanker(35)** **Melvin Abraham(29)** **Raj Praneeth (58)**		
Reference Paper TITLE and AUTHOR	**Concept and Algorithms**	**Advantages**	**Drawbacks**
Text Summarization Techniques: SVM versus Neural Networks Shang Gaoa, Jawad Attari, Ken Barker	-Text Summarization using two models and comparing their performances ! -SVM vs Neural networks , because both are good at non-linear data and at large scale. -Find applicable corpus =>Extract features=>assign predictor class=>train and validate =>compare	-SVM is faster than Neural network -Neural network is a bit efficient compared to SVM. -When moved from normal MLP to Transformer models such as Bert , significant improvements were found -Helps to find the best approach	-Time consuming and Computational -Lack of Good Corpuses. -Might not be the perfect one (real time) , Example as when taken into something more complex such as medicine , we might never know .
Extractive Summarization using Continuous Vector Space Models Olof Mogren, Devdatt Dubhashi, Mikael Kageb ˚	-Focuses on notion of similarity of sentences . -Embeddings are created and mapped into latent space -tf-idf , vector distance , cosine-similarity are used	-Improve the existing models by applying better techniques. -Compare DeepNN, RNN,Autoencoders . -State of the Art Performance achieved	-Highly Time consuming & Computationally costly -Word embedding Approach is comparatively slower and high dimensional as embeddings itself will take a huge time.

Sequence GAN for long Text Summarization Hao Xu, Yanan Cao, Yanbing Liu	Triple RNN as Discriminator and Encoder Decoder as Generative. Attention mechanism RNN Encoder Decoder Architecture. Positional Encoding	(seq2seq model achieves sota it uses Most Likekihood Estimation (MLE) principle for training, which suffers from exposure bias in inference phase therefore it performs worser than machine learning algo LexRank GAN in machine translation using ANMT. Double Attention machanism. Compare LexRank,abs-baseline atttention-based seq2seq model,abs+INRNN by introducing attention in encoder,abs+ enahnced version of abs,DeepRL,ANMT. ATRNN - 41.565 IN DAILY MAIL Corpus and 31.40% in NLPCC corpus	the generated summaries consist of repeating phrases. our model is still a supervised learning one relying on high-quality training datasets which is scarce. we will study an unsupervised or semi-supervised framework which can be applied to the text summarization task.
PEGASUS: Pre-training with Extracted Gap-sentences for Abstractive Summarization Jingqing Zhang * 1 Yao Zhao * 2 Mohammad Saleh 2 Peter J. Liu 2	Sparse Attention mechanism. MLM (Masked Language Model) Transformer	evaluated PEGASUS model on 12 downstream./test data summarization tasks spanning news, science, stories, instructions, emails, patents, and legislative bills. Experiments demonstrate it achieves state-of-the-art performance on all 12 downstream datasets measured by ROUGE scores.. model was able to adapt to unseen	Need Large Corpus of text data for pre-training objective. Other than that no any drawbacks because it latest paper released in july 2020 overcomes all the drawback of previous bird-pagasus. Need indepth understanding of transformer and its architecture to implemention.. Of course really high computation speed .

		summarization datasets very quickly	
Multi documents on text summarization techniques **Author:** Chintan Shah and Anjali G Jivani	Graph LSA Term frequency Cluster	New approaches can be made and developed with the help of NLP and Linguistic apperances which can help us to get better summary	By using exiting techniques approaches there will be more time consuming and effort towards will be more
A Survey on Automatic Text Summarization **Authors:-** D.Das , AFT MArtins	-Uses Naïve bayes -Decision Trees -Hidden Markov Models -Non Linear Models	-Compares Performance and decides which one is the best among these.	-it is diffcult to replicate or extend the broader domains in abstractive summarization
Improving performance of Text Summarization **Authors:** S.A.Babara Pallavi D.Patil	- This model makes use of fuzzy logic extraction approach for text summarization. - Performs Latent Semantic Analysis (LSA) as opposed to performing direct word matching. - Has high recall and precision significance test with manual evaluation results	- Can extract hidden semantic relations between concepts in a text unlike the traditional methods. - Accurately captures semantic contents in sentences with the help of latent semantic analysis.	
Automatic summarising: the state of the art **Author:** Karen Spark Jones	- content is extracted from the original data, but the extracted content is not modified in any way. - Abstraction transforms the extracted content by	- Works Instantly. Reading the entire article, dissecting it and separating the important ideas from the raw text takes time and effort	- Automatic summarization is a complex task that consists of several sub-tasks. - Each of the sub-tasks directly affects the ability to generate

	paraphrasing sections of the source document, to condense a text much more strongly.	- Can work with any languages without the need for manual intervention	high quality summaries.