

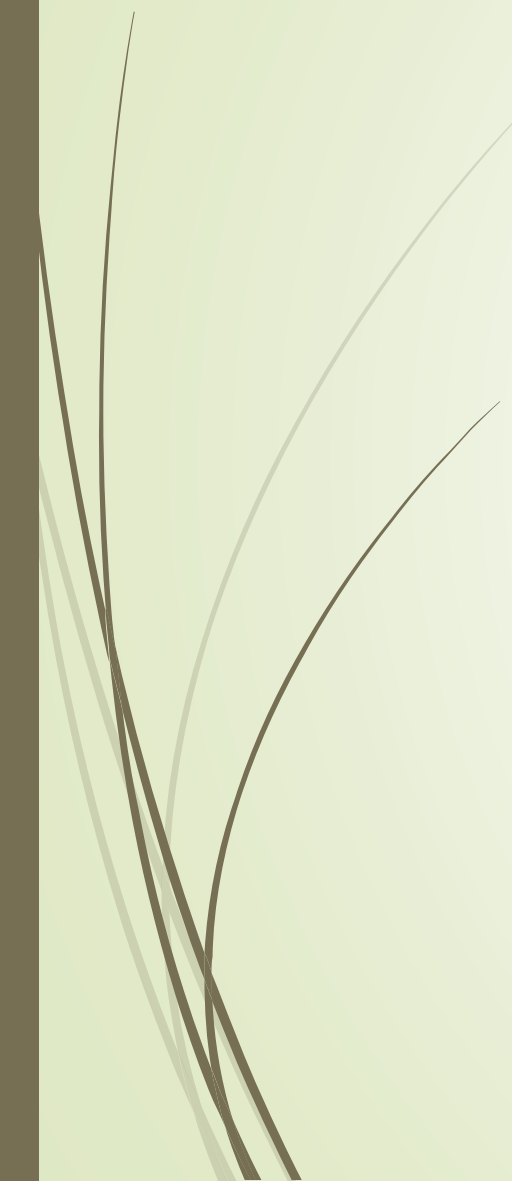


Analysis of Telemonitoring Data Collected From Parkinson's

Clustering, Classification, Association Rules

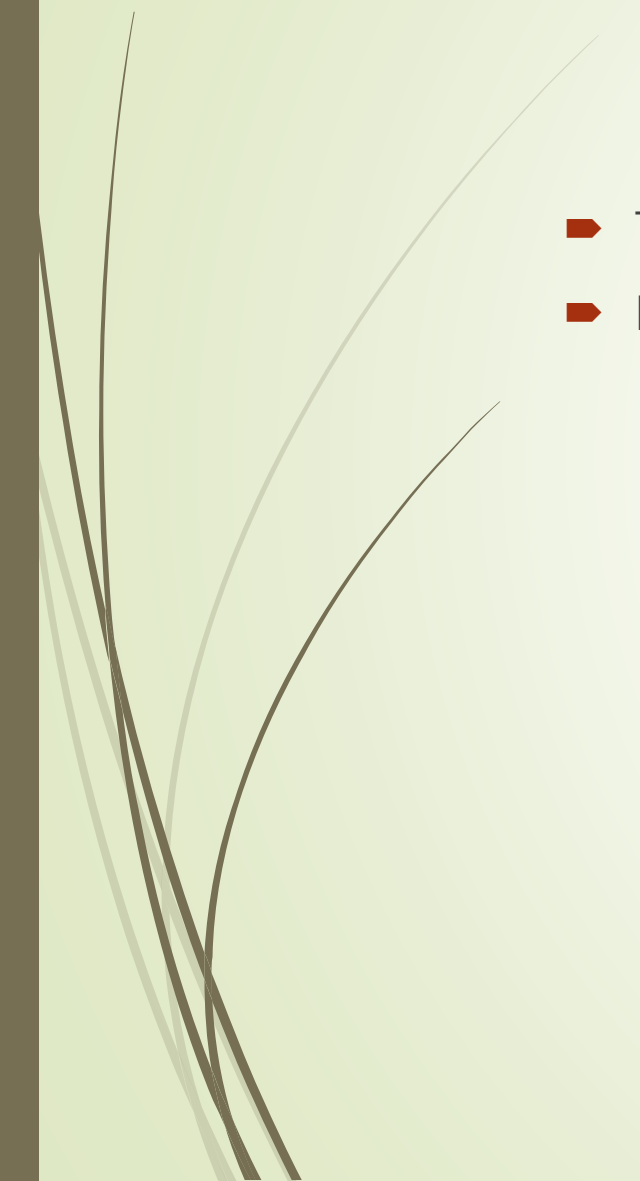


Parkinson's Disease is a Neurodegenerative Disorder

- Dopamine system
 - Degenerative
 - Cause unknown
 - Progression well known
- 

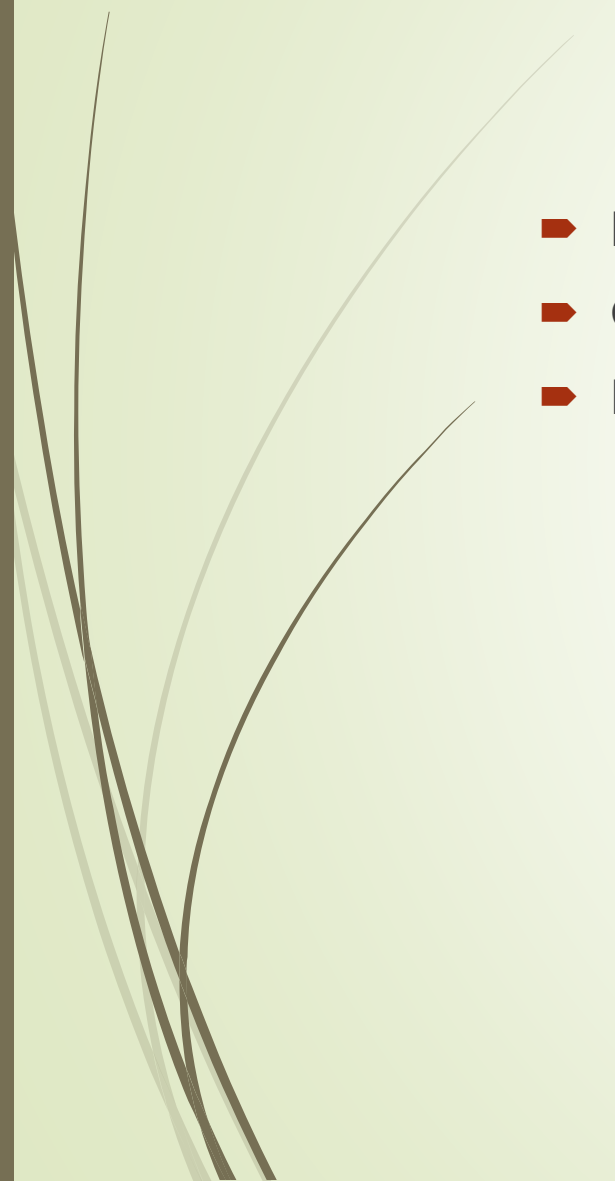


Treatment is Pharmacological

- Treated by regulating dopamine system
 - Diminishing returns
- 

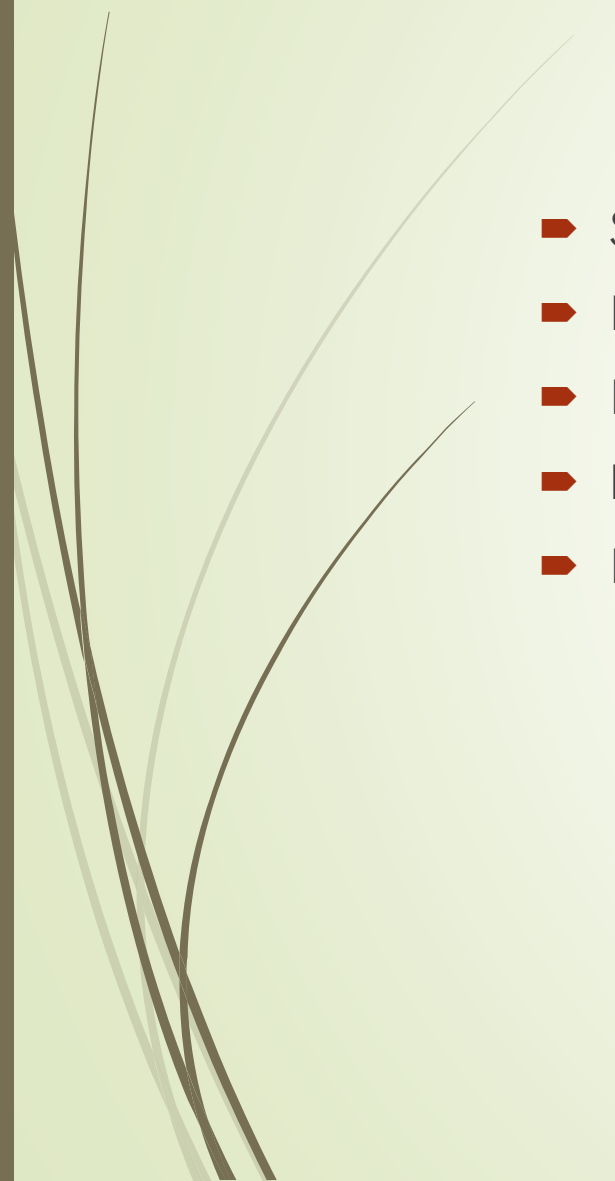


Previous Work

- Data gathered using specially build equipment
 - Clinician measurements can be considered objective
 - Regression analysis not fruitful
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Potential to Enhance Outcomes

- Speculative analysis
 - Longer efficacy immediate benefit
 - Reduce cost
 - Increase availability
 - Regulate with medication port
- 

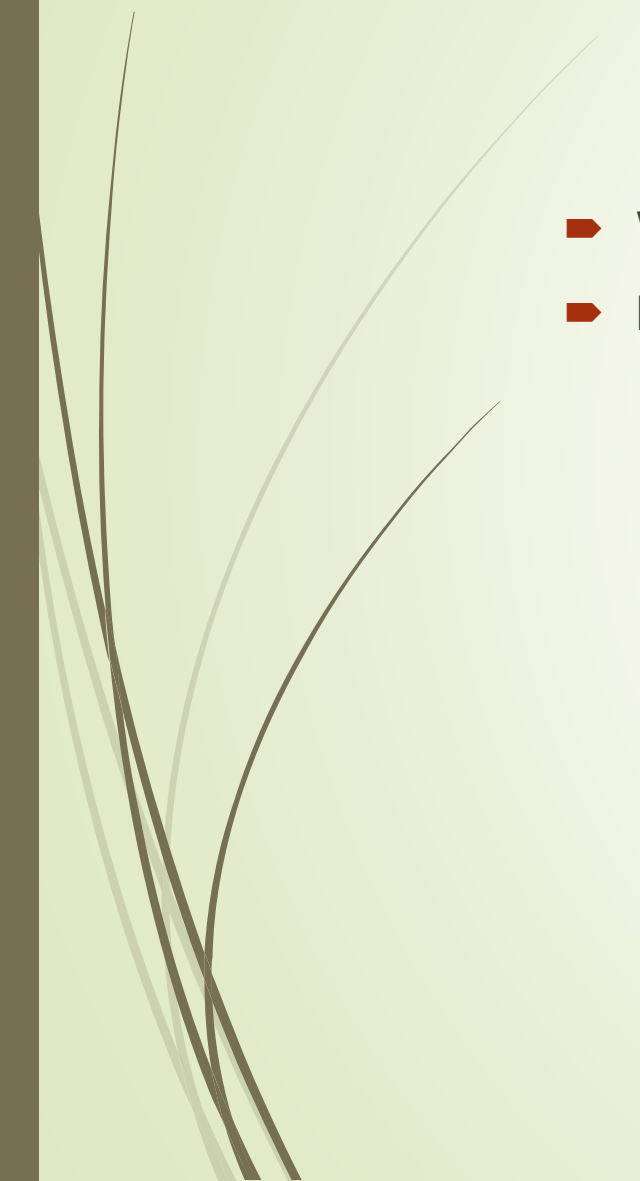


DBSCAN Didn't Work

- Too dense data
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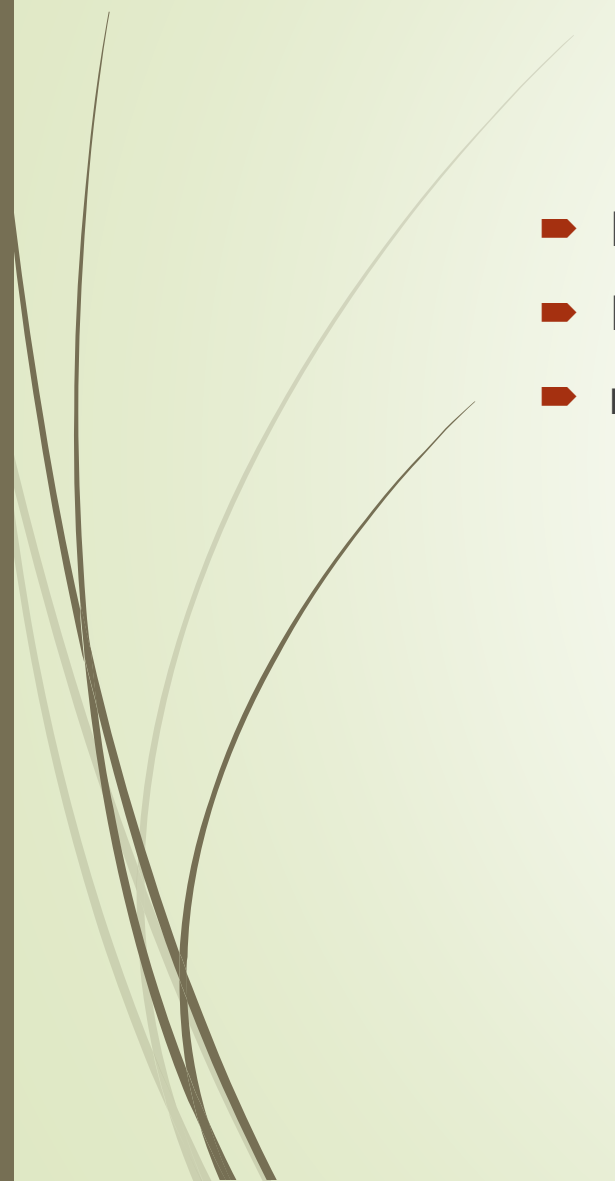


OPTICS

- Works better because
 - Results are
- 



K-means Clustering

- K-means did
 - K++ kinda did
 - results
- 



Cross Validation

- Priya describe
- 



Classification

- Priya describe



Association Rules and Frequent Item Sets

- Discovered
- Interesting because
- Could probably do



Conclusion

- K++ is best clustering
 - Association rules are promising
 - Data is dense and that drives options
 - More data is always better
- 