

## INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) COMPUTER SOCIETY CHAPTER HYDERABAD SECTION IN ASSOCIATION WITH IEEE AGI

08/05/2020

**SUB:** Report on webinar big data application for transportation: a case study at the nebraska department of transportation

**Date:** 08<sup>th</sup> May 2020

**Time:** 11:00AM-12:30PM

**Venue:** Cisco WebEx Meet

**Speaker:** DR. Sandeep Singh Rawat

Professor C.S.E., A.G.I

Senior Member, IEEE

**No. of Participants:**

**Objective:** The Main Objective of this webinar is With this technology an organisation or individual can obtain, store, transform and analyse large amounts of data to solve specific problems. A data driven approach of nerbraska department of transportation One can build predictive data models and detect future trends.

The speaker also explained what is big data in transportation?

He stated that the large and complex data sets –difficult to process using traditional data technology

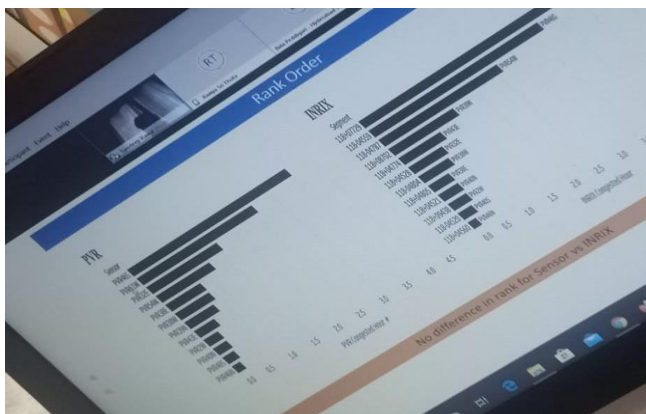
He stated that 4 v's of big data are:-

- 1.volume
- 2.velocity
- 3.variety
- 4.veracity

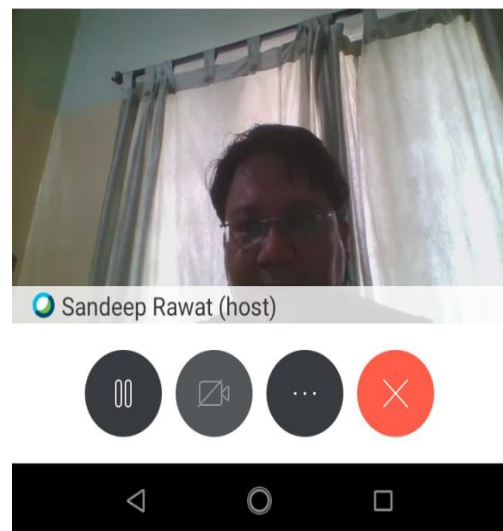
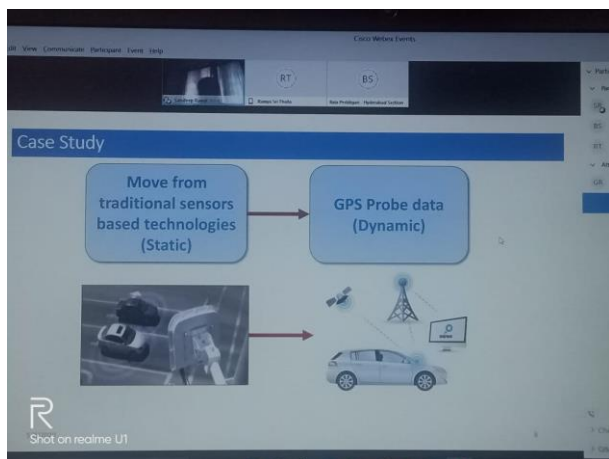
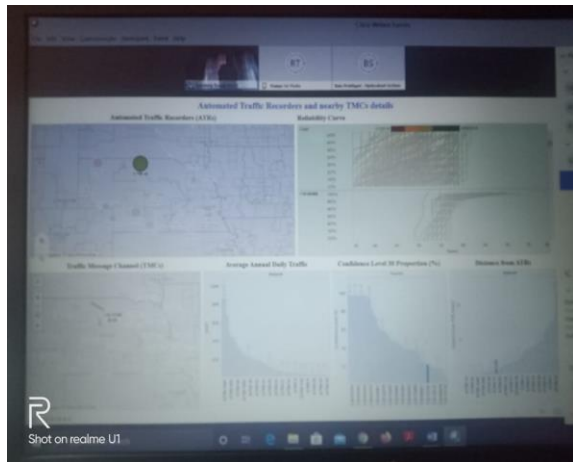
And explained them very effectively and clearly to all the participants

Also differentiated the probe data Vs Traditional sensor data and said that presently Nebraska maintained 65 Automatic Traffic Recorder covering different location

Also discussed about the rank order and showed the graph of rank order between PVR and INRIX and there is no difference in rank for sensor Vs INRIX




Some snaps during the webinar are as below :



## Objective

### Probe Data vs Traditional Sensor Data



What's next ?

→

Is INRIX probe data reliable?

- Presently Nebraska maintained 65 Automatic Traffic Recorder covering different location.


Shot on realme U1

## What is Big Data in Transportation?

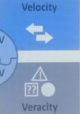
Large and complex data sets - difficult to process using traditional database technology

### 4 Dimensions (V's) of Big Data


Volume



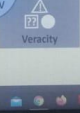
Velocity



Variety



Veracity



Shot on realme U1

## Motivation

How big data can help in Transportation?

Better traffic management

Incident detection

Improving traffic safety

Real-time feedback

The challenges include capturing, storing, searching, sharing & analyzing

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REPORT DONE BY  
GUNTUR RENU  
MEMBERSHIP ID :96545804