

Report on

IEEE Technical Talk Series 2021

Expert: Dr. R. Logeswaran

June 12th 2021

Title: Data Science and Big Data: From introduction to application



IEEE Signal Processing Society

Gujarat Section

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- POSTER FOR THE TALK



IEEE Signal Processing Society Gujarat Chapter
in collaboration with IEEE GCET SB
presents
Expert Talk Series

Big data and data science are inseparable due to unprecedented growth of information generated worldwide and on the internet where different methods, algorithms, and complex programming techniques under data science are combined and applied to perform intelligent analysis in large volumes of data.

Data science and Big data: From Introduction to Applications

June 12 2021 | 10 AM IST
Scan to Register



(WebEx link will be sent to registered participants)



Dr. R Logeswaran
Professor and Dean of
Graduate Studies at Asia
Pacific University (APU),
Malaysia

 ieeespsgs.org/  [ieeespsgs](https://www.facebook.com/ieeespsgs)

- EXPERT PROFILE



Dr. R. Logeswaran

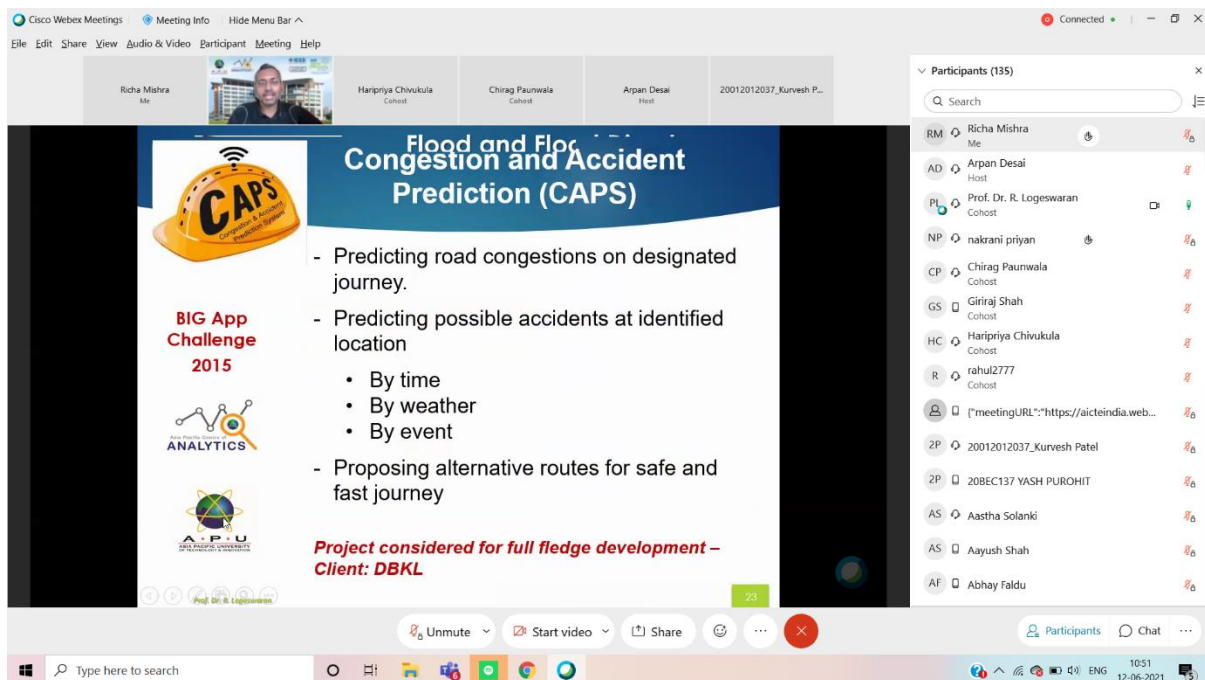
Head of Asia Pacific Centre for Analytics (APCA)

Professor Dr. R. Logeswaran is the head of the Asia Pacific Center for Analytics (ACPA) and full Professor of Computing and Engineering at the Asia Pacific University of Technology and Innovation (APU), Kuala Lumpur, Malaysia, where he also served as the Dean of Graduate Studies and chaired the university's Research Committee. Prior to that, he was the Dean of the Faculty of Engineering, Science and Technology at Nilai University and before that, the Acting Dean of Engineering and Deputy Dean of Postgraduate Studies at Multimedia University, and then Adjunct Professor.

INTRODUCTION:

SPS Chapter of IEEE GCET SB in collaboration with IEEE SPS Gujarat Section conducted an Expert Talk in the Technical Talk Series which focused on the topic **“Data Science and Big Data: Introduction to Applications”**.

The speaker for this event was Dr.R. Logeswaran, who is Head of Asia Pacific Centre for Analytics. Dr.R.Logeswaran discussed about the various applications of Data Science and Big Data.



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Richa Mishra Me Haripriya Chivukula Cohost Chirag Paunwala Cohost Arpan Desai Host 20012012037_Kurvesh P...

Flood and Flood Congestion and Accident Prediction (CAPS)

- Predicting road congestions on designated journey.
- Predicting possible accidents at identified location
 - By time
 - By weather
 - By event
- Proposing alternative routes for safe and fast journey

BIG App Challenge 2015

ANALYTICS

A.P.U.

Project considered for full fledged development – Client: DBKL

Participants (135)

Search

RM	Richa Mishra Me	
AD	Arpan Desai Host	
PL	Prof. Dr. R. Logeswaran Cohost	
NP	nakrani priyan	
CP	Chirag Paunwala Cohost	
GS	Giriraj Shah Cohost	
HC	Haripriya Chivukula Cohost	
R	rahul2777 Cohost	
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ZP	20012012037_Kurvesh Patel	
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AS	Aastha Solanki	
AS	Aayush Shah	
AF	Abhay Faldu	

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ABOUT THE EVENT:

The talk started with the introduction of the Data Science and some basics of Big Data. Then participants were presented what are the types of Applications by showing them real time examples. Then after sir discussed about Big Data handling and their use.

The session continued with the topic of Data Science and what are the ways of handling Big Data.

After the completion of the topics, there was an interactive QnA session with intriguing questions and sir answered all the questions which made the session more engaging and fruitful. All the participants gained very useful knowledge of Data Science and Big Data Analysis and were thankful to the speaker for sharing his knowledge with them.

- GLIMPSES OF THE TALK



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Participants (115)

Richa Mishra Me
Arpan Desai Host
Prof. Dr. R. Logeswaran Cohost
Chirag Paunwala Cohost
Giriraj Shah Cohost
Haripriya Chivukula Cohost
1124_Prajapati_Rhydham
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20BEC137 YASH PUROHIT
Aastha Solanki
Aayush Shah
Abhay Faldu
Aditi Patel
Aditya Kotadiya

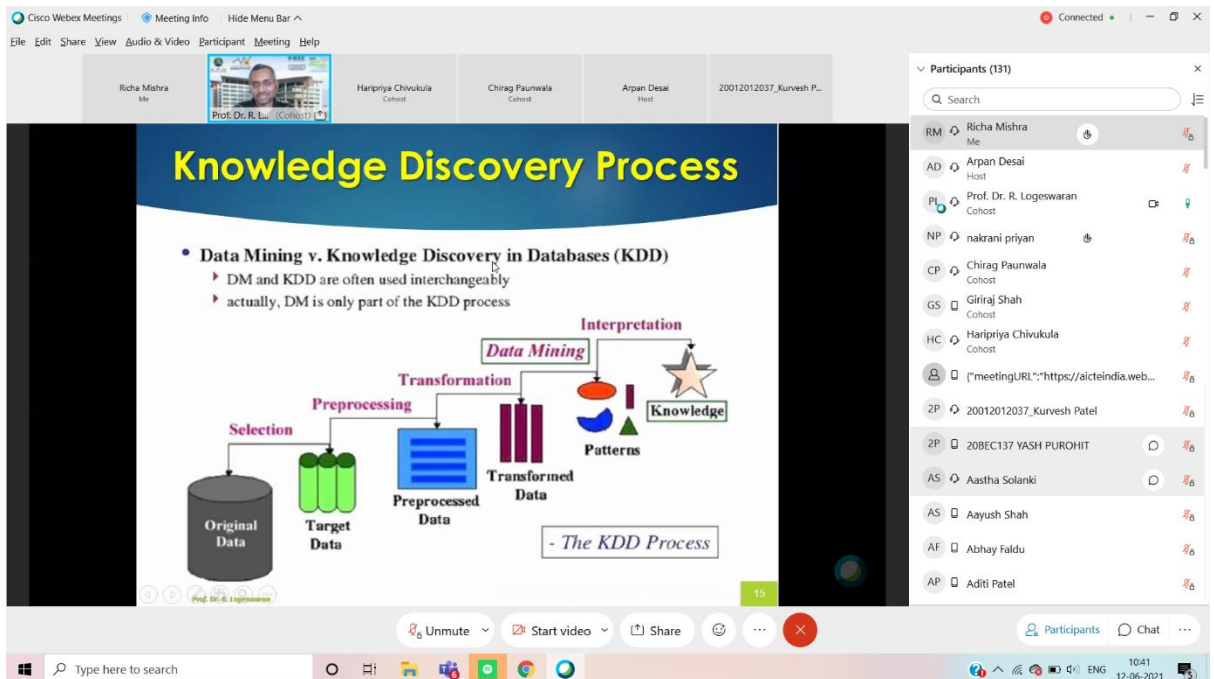
**DATA SCIENCE & BIG DATA:
From Introduction to Applications**

PROF. DR. R. LOGESWARAN
Head, Asia Pacific Centre for Analytics,
Asia Pacific University of Technology & Innovation, Malaysia
Chair, IEEE Signal Processing Society Malaysia Chapter
Advisor, APU IEEE Student Branch
Advisor, Asia Pacific Analytics Club

IEEE Signal Processing Society GUJARAT CHAPTER
IEEE A.P.U. STUDENT BRANCH
APAC ASIA PACIFIC CENTRE FOR ANALYTICS
A.P.U. ASIA PACIFIC UNIVERSITY OF TECHNOLOGY & INNOVATION

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Participants (131)

Richa Mishra Me
Arpan Desai Host
Prof. Dr. R. Logeswaran Cohost
nakrani priyan
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Giriraj Shah Cohost
Haripriya Chivukula Cohost
["meetingURL":"https://aicteindia.web...
20012012037_Kurvesh Patel
20BEC137 YASH PUROHIT
Aastha Solanki
Aayush Shah
Abhay Faldu
Aditi Patel

Knowledge Discovery Process

- Data Mining v. Knowledge Discovery in Databases (KDD)
 - DM and KDD are often used interchangeably
 - actually, DM is only part of the KDD process

The KDD Process

```

    graph LR
      OD[Original Data] -- Selection --> TD[Target Data]
      TD -- Preprocessing --> PD[Preprocessed Data]
      PD -- Transformation --> TrD[Transformed Data]
      TrD -- Data Mining --> P[Patterns]
      P -- Interpretation --> K[Knowledge]
    
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Big Data Jobs not filled due to lack of Skilled Professionals

Role	Filled	Unfilled
Data Scientist	82	18
Big Data Visualizer	23	77
Big Data Research Analyst	31	69
Big Data Engineer	44	56
Big Data Architect	43	57
Big Data Analyst	50	50

Only 1/3 of the Big Data skill requirements are met.

2/3 of Big Data skill requirements are not met due to lack of skilled professionals.

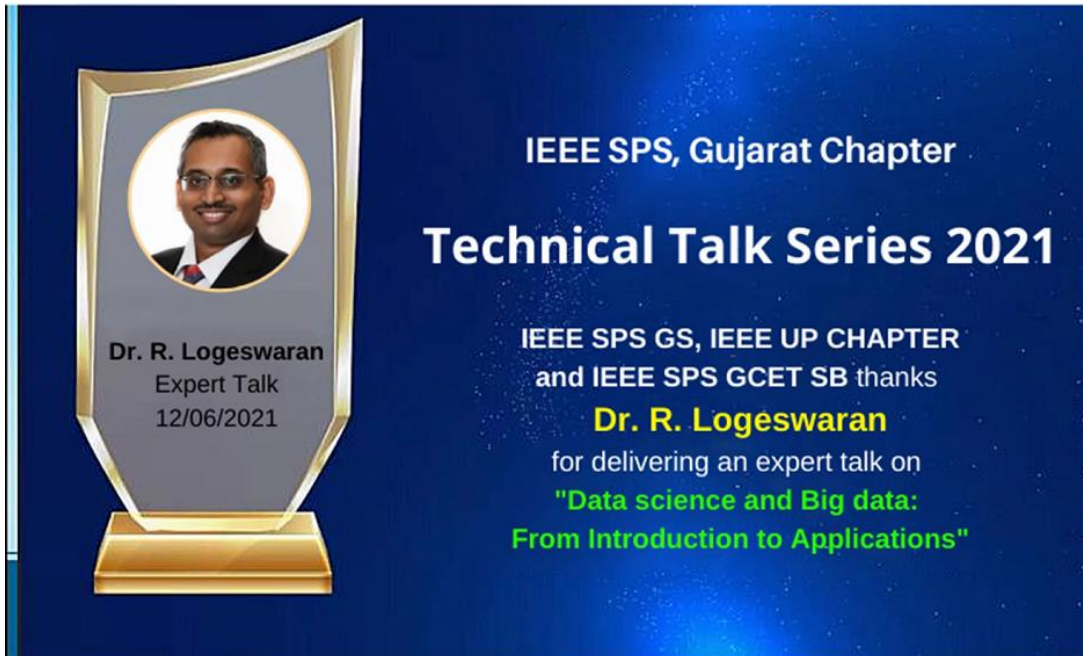
Participants (140)

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- MOMENTO FORMAT



- VIDEO RECORDING CONSENT FORMAT



Video Recording Consent and Release Form

I hereby permit the IEEE Signal Processing Society, Gujarat Section to record my presentation in connection with my participation in the event mentioned below and (check all that apply):

- distribute it to the event attendees as a free benefit.
- post it on the event's website and the IEEE Signal Processing Society, Gujarat Section YouTube Channel provided that the presentation will be deleted from the Channel within 30 days of my request.

By signing below,

- I agree to the terms stated above and hereby certify that I am 18 years of age or older.

Prof. Dr. R. Logeswaran 11th June 2021
Signature/Date

Prof. Dr. R. Logeswaran
Print Name

Data Science and Big Data: From Introduction to Applications
Talk Title

12th June 2021
Date of the talk

Expert Talk
Name of the event

WebEx/Online
Name of the location/venue



- NUMBER OF PARTICIPANTS

Total: 189

IEEE Members: 45

Non IEEE Members: 144

Report Prepared by: Richa Mishra

Vice-Chairperson | IEEE SPS GCET Chapter