



# SVCE

Sri Venkateswara  
College of  
Engineering



35 Years of Excellence

**DEPARTMENT OF INFORMATION TECHNOLOGY**

**ASSOCIATION OF INFORMATION TECHNOLOGISTS**

Special Talk

on

29.01.2021

A REPORT

*Submitted to the principal*

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*[Signature]*  
T6 5/21

svce.ac.in



*Spanish*  
T# 3/21



SIVAGAMI V M IT &lt;vmsiva@svce.ac.in&gt;

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## AIT guest lecture invitation -Insights into Deep Learning\_Reg

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**RAJARAM V IT** <vrajaram@svce.ac.in>  
To: HOD IT <hodit@svce.ac.in>  
Cc: SIVAGAMI V M IT <vmsiva@svce.ac.in>

Wed, Jan 27, 2021 at 9:27 PM

Madam I have attached as per new format (with new header and footer)

Dear Sir/Madam,

On behalf of our AIT and SVCE family, We would like to welcome you all to join us for a **Guest Lecture titled "Insights in to Deep Learning"**

to be held on 29th January 2021 between 10.00 am to 11.00 am.

Online link: [meet.google.com/bkk-adtj-dfy](https://meet.google.com/bkk-adtj-dfy)

Attaching herewith the formal invitation and agenda for your kind reference.

All are welcome!

AIT coordinators &

Dr.V.Vidhya

Professor & Head

Dept. of Information Technology  
Sri Venkateswara College of Engineering  
Sriperumbudur-602117

Ph.044-27152000,extn:350

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 **AIT-invitation 29 january 2021.pdf**  
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**SVCE**

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**DEPARTMENT OF INFORMATION TECHNOLOGY  
INVITATION MAIL:**

27 January 2021

To

Dr. M. K. Sandhya,  
Professor/CSE  
Meenakshi Sundararajan Engineering  
College Chennai

Dear Madam,

**Subject:** Invitation – Guest Lecture on “Insights into Deep Learning”- reg.

At the outset we would like to thank you for your graceful acceptance of our invitation to deliver Guest Lecture on “Insights in to Deep Learning”- on 29 January 2021, 10am onwards.

Department of IT engages in several activities like Workshops, Expert Lectures, Symposia and Industrial visits aimed to benefit our students and faculty members. These activities equip them to sharpen their technical skills and create awareness & bonding among our students. Department of IT looks forward to your presence amongst our faculty members & students for sharing of your valuable thoughts and advice on this topic will definitely benefit them.

We thank you once again for accepting our invitation. We eagerly await the interaction with you to enrich our faculty members with your expertise.

Thank you.

Yours sincerely,

(Dr. V. Vidhya)  
HoD /Information Technology  
SVCE



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## **BROCHURE**

# **ASSOCIATION OF INFORMATION TECHNOLOGISTS & DEPARTMENT OF INFORMATION TECHNOLOGY**

**Solicit your esteemed presence for the**

**Guest Lecture**

**on**

**Insights into Deep Learning**

**By**

**Dr. M. K. Sandhya**

**Professor/CSE**

**Meenakshi Sundararajan**

**Engineering college**

**Chennai**

**Venue : Online Mode**

**Date : 29<sup>th</sup> January 2021**

**Time : 10.00 AM**

## AGENDA

**DATE :**

**29.01.2021**

**TIME :**

**10.00 AM**

**VENUE :** Online Mode ( [meet.google.com/bkk-adtj-dfy](https://meet.google.com/bkk-adtj-dfy))

- Prayer Song
- Welcome address
- Introduction of Chief Guest
- Short note by HOD
- Special talk by Chief Guest
- Questionnaire and Feedback
- Vote of Thanks



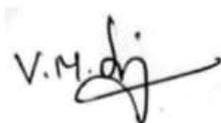
**Coordinators:**

**Dr. V.M. Sivagami**

**ASP/IT Mr. V.**

**Rajaram AP/IT**

AIT Coordinators



Dr. V. Vidya HOD/IT



# Presentation by Speaker

## Training

Optimize (min. or max.) objective/cost function  $f(\theta)$   
Generate **error signal** that measures difference between predictions and target values

Use error signal to change the **weights** and get more accurate predictions  
Subtracting a fraction of the **gradient** moves you towards the (local) **minimum of the cost function**

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## State of the art in ...

According to Microsoft's speech group:

Deep Learning in Speech Recognition

ImageNet: The "computer vision World Cup"

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## Convolutional Neural Networks (CNNs)

Main CNN idea for text:  
Compute vectors for n-grams and group them afterwards

Example: "this takes too long" compute vectors for:  
This takes, takes too, too long, this takes too, takes too long

Input matrix      Convolutional 3x3 filter      Image      Convolved Feature

[http://deeplearning.stanford.edu/wiki/Howto:Feature\\_extraction\\_using\\_convolution](http://deeplearning.stanford.edu/wiki/Howto:Feature_extraction_using_convolution)

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Sandhya W R is presenting

## Neural Network Intro

Input  $x$       Hidden  $h$       Output  $y$

$$h = \sigma(W_1x + b_1)$$

$$y = \sigma(W_2h + b_2)$$

Demo

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Sandhya W R is presenting

## Convolutional Neural Networks (CNNs)

Main CNN idea for text:  
Compute vectors for n-grams and **group them afterwards**

Feature Map      Max-Pooling

max pool 2x2 filters and stride 2

<https://github.com/robertostromer/maxpooling>

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## CNN for text classification

sentence matrix  $S \in \mathbb{R}^{d \times |x|}$       convolutional feature map  $C \in \mathbb{R}^{n \times (|x| - m + 1)}$       pooled representation  $C_{pool} \in \mathbb{R}^{1 \times n}$       softmax

embedding dimension

$F \in \mathbb{R}^{d \times m}$

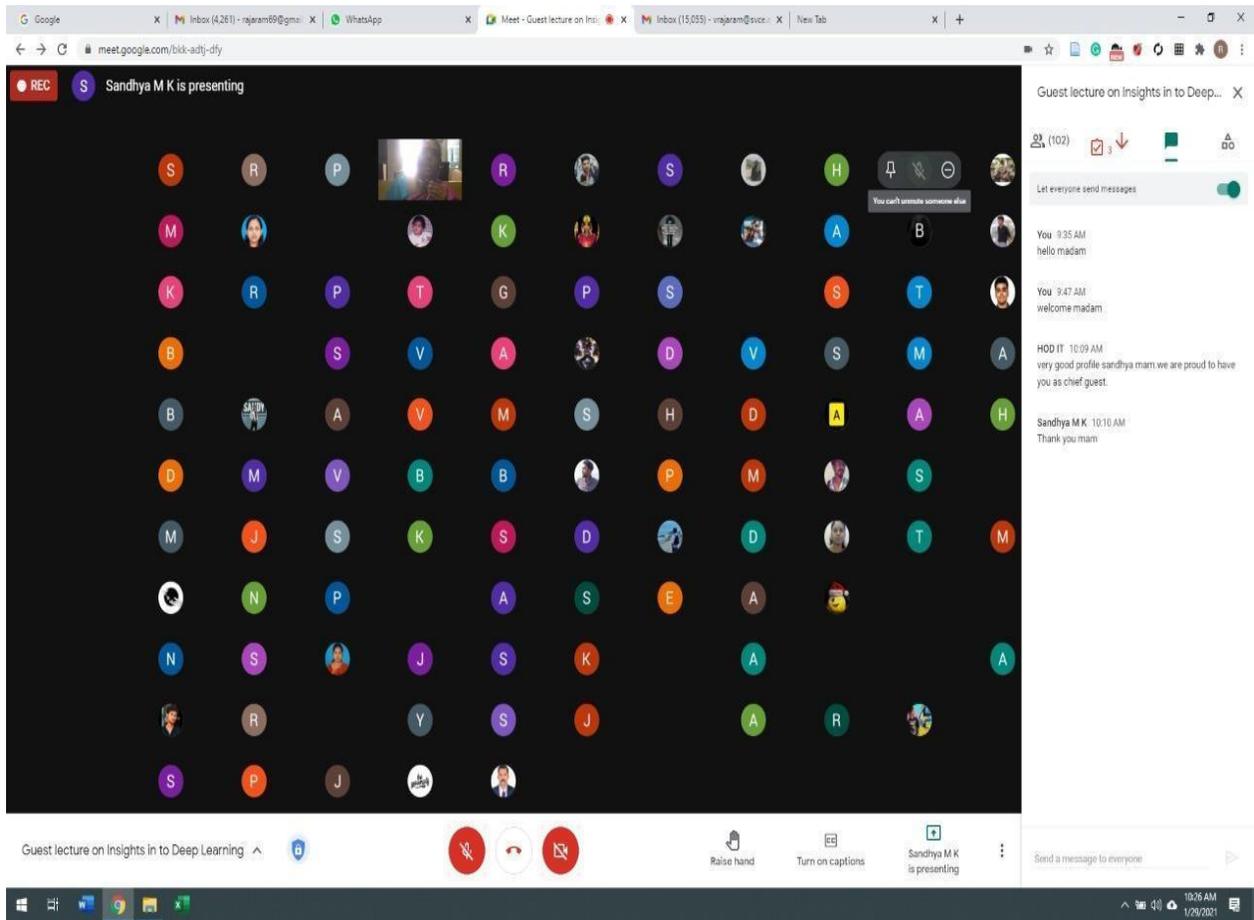
1, Love, my, dog, is, my, favorite, 1

Severyn, Aliaksei, and Alessandro Moschitti. "UNITN: Training Deep Convolutional Neural Network for Twitter Sentiment Classification." *SemEval@ NAACL-HLT* 2015.

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# Screenshots



## Feedback from Audience

Name	Year	How satisfied were you with the event?	How satisfied were you with the session content?	Suggest some topics for the upcoming events.	Any additional comments?
rajaram	Faculty	5	5	no	no
Vaishnavi P	III	5	5	Data Science	No
Janani J N	III	4	4	Edge computing	
MAYANK SHARMA	III	4	4	.	Nice presentation
CHITRA S	III	5	5	-	-
V.M.Sivagami	Faculty	5	5	Applications of Deep Learning	Very useful and informative
Deepika V	III	5	5	Big data and biometrics	Interesting session
Abilash	III	4	3	Cyber security	
Yogalakshmi S	III	4	5	Data science	Good
Praveenkumar V	Faculty	5	5	Recurrent Neural Networks	Informative session
Akilesh G	III	4	4	No	Good
Rithika. G	III	5	5	Ethical hacking	
SUDHA R	III	5	5	Cloud Computing in Data Science	Nil
Nilavezhil K	III	5	5	Cyber security	Needs some hands on session
Monishkumar M	III	4	4	AI	
Sri Balaji	III	5	4	Regarding placements.	nothing
Vimal Prasath D	III	5	5	Cyber security	
Varshini Muralidharan	III	4	4	Artificial intelligence	No
Joann Nittika	III	4	4	full stack development	Good
Premavathi R	III	4	5	-	-
Savitha S	III	3	3	Big data	
Kaaviya Baskaran	IV	3	3	Computer Vision	Could have been made more interesting
Swetha S	III	4	5	Testing	
NAVISH VARDANAA .S	III	4	4	Practical session on penetration	good



				testing and bug bounty	
Vivekanandan M	III	5	5	None	None
BHUMA TEJASWI	III	5	4	-	
MALINI A R	III	5	5	no suggestions	The Session was very informative and useful
Abhishek R	III	3	3	Big data	
vignesh B	III	4	5	artificial intelligence	good
Pradeepan P	III	4	4	Nothing	excellent
Murugan v	III	4	4	computer vision	no comments
Madhumitha E	III	5	4	AI	
TWESHIN BALAJI	III	3	3	Image processing	good
Dharshan V	III	5	5	CNN, DNA computing	excellent
Surendhar M	III	4	4	none	nothing
SNEHA M	II	5	5	Data Science	Nice
M S Madhan Kumar	III	3	4	Augmented Reality	No
Srinithi A	III	5	5	Ethical hacking	No it was very good
Praveen T	III	4	4	Cybersecurity related	none
Dharshan M	III	4	4	IoT	No comments
Srinithi	III	4	4	AI	no
Vishwaa VS	III	4	4	.	New ideas
Akshaya Lakshmi N.S.	III	5	5	Ethical hacking	Good
Roshini S	III	5	4	Artificial intelligence core	good
THAMODARAN M	III	5	5	DL,ML,AI	Informative
YashwanthKumar V	III	5	5	Data Analysis	No comments
Surya Prakash M	III	5	5	Anything u wish	
Yashwanth kumar V	III	5	5	Artificial intelligence	good
Arun Kumar G	III	4	4	React development	good
Aarathi K	III	4	5	Emerging trends in	Data science
P.chakith	III	5	5	Ethical hacking	Nothing
Thiyagarajan A	Faculty	5	5	Ensemble Methods	Informative
Haritha C	III	5	5	-	Good



P.Sharonfemi	Faculty	5	5	Green Computing	The Session was very informative and useful
A.kala	Faculty	5	5	Ensemble Methods	useful
D.jayanthi	Faculty	5	5	Fog Computing	Informative
V.Rajaram	Faculty	5	5	Cyber Security	Excellent
Meenakshi	Faculty	5	5	Edge computing	Good
V.Ranjith	Faculty	5	5	Cyber security	Nice session
P.Leelarani	Faculty	5	5	Ensemble Methods	Good presentation
N.Devi	Faculty	5	5	Data Analytics	Very much informative
G.Sumathi	Faculty	5	5	AI	Good
A.Indhumathi	Faculty	5	5	ML	Excellent

V.M.dj V.Rajaram

**AIT COORDINATORS**

OK

**HOD/IT**



P.Sharonfemi	Faculty	5	5	Green Computing	The Session was very informative and useful
A.kala	Faculty	5	5	Ensemble Methods	useful
D.jayanthi	Faculty	5	5	Fog Computing	Informative
V.Rajaram	Faculty	5	5	Cyber Security	Excellent
Meenakshi	Faculty	5	5	Edge computing	Good
V.Ranjith	Faculty	5	5	Cyber security	Nice session
P.Leelarani	Faculty	5	5	Ensemble Methods	Good presentation
N.Devi	Faculty	5	5	Data Analytics	Very much informative
G.Sumathi	Faculty	5	5	AI	Good
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V.M.dj V.Rajaram

**AIT COORDINATORS**

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35 Years of Excellence

**DEPARTMENT OF INFORMATION TECHNOLOGY**

**ASSOCIATION OF INFORMATION TECHNOLOGISTS**

**Report**

**Special Talk**

**Chief Guest: Dr. M. K. Sandhya,**

**Professor/CSE,**

**Meenakshi Sundararajan Engineering College,**

**Chennai**

**Target Audience : 3<sup>rd</sup> Year and 4<sup>th</sup> Year IT Students**

**Venue: Online (Google Meet)**

**Date & Time : 29.01.2021, 10:00 AM**

**Objective:**

- To get an exposure about Deep Learning, Neural Networks, Convolutional Neural Networks.

On 29<sup>th</sup> of January 2021, a Special Talk on “ Insights into Deep Learning “ was delivered by Dr. M. K. Sandhya, Professor/CSE, Meenakshi Sundararajan Engineering College, Chennai.

The welcome address was given by Dr. V.M. Sivagami, AIT Coordinator. The event was compered by Mr. Riyenth S, General Secretary of AIT and the prayer song was sung by Ms. Kaaviya Baskaran, President of AIT. Ms. Sneha M, Executive Member of AIT, introduced the Chief Guest. Dr. V. Vidhya, Head of Department, addressed the Chief Guest and the students.

The session lasted for about one hour. The chief guest gave a talk on the below mentioned points:

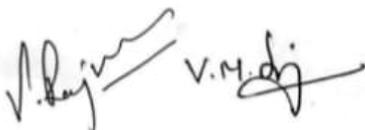
7. Introduction to Artificial Intelligence, Machine Learning and Data Science Life Cycle.
8. Deep Learning in the context of Artificial Intelligence.
9. Difference between Machine Learning and Deep Learning.
10. Neural Networks and Neural Network Playground ([playground.tensorflow.org](http://playground.tensorflow.org)).

11. Convolutional Neural Networks and its application in text classification.
12. Distant supervision and Relation Extraction from text.

The Students were exposed to latest trends in Deep learning and its applications from the session and clarified the doubts by raising questions during the Q&A session and the same was very well clarified with real time examples by the Chief Guest. The students registered their feedback in the feedback form which was sent at the end of the session. Mr. V. Rajaram, AIT Coordinator delivered Vote of thanks and the session came to an end.

**Outcome of the program:**

- Faculty & Students were exposed to the concepts of Deep Learning, Neural Networks, Convolutional Neural Networks and their applications.
- This guest lecture may benefit both students and faculty who are doing their research work in the above area as well as an motivational talk to third year students who may start their research in Deep learning.



**AIT COORDINATORS**



**Dr. V. Vidhya**

**HOD/IT**