

A Brief Report

On

Three days National Webinar

On

“RECENT TRENDS AND FUTURE SCOPE”

(26-28 May,2021)

Organized By



Department of Computer Science

(In association with IQAC)

Govt. V.Y.T. PG AUTONOMOUS COLLEGE, DURG (C.G)

About the Webinar:-

Linear regression is perhaps one of the most well known understood algorithm in statistics and machine learning. In linear regression, how it works and how you can use it in on your machine learning projects. And you will learn the representation and learning algorithms used to create a linear regression model. In applied machine learning we will borrow, reuse and steal algorithms from many different fields, including statistics and use them towards these ends. Linear regression was developed in the field of statistics and is studied as a model for understanding the relationship between input and output numerical variables, but has been borrowed by machine learning.

Image processing is a way to convert images to a digital aspect and perform certain functions. It is one of the fastest growing technologies today with its use in various technologies today with use in various business sectors. Graphic design forms the core of the research space with in the engineering and computer science industry. It produces the final stage where the result can be changed to an image or report based on image analysis.

ANNs ability to take in a lot of inputs, process them to infer hidden as well as complex, non-linear relationships, ANNs are playing a big role in image and character recognition. Character recognition like handwriting has lot of applications in fraud detection (e.g. bank fraud) and even national security assessments. Image recognition is an ever-growing field with widespread applications from facial recognition in social media, cancer detection in medicine to satellite imagery processing for agricultural and defense usage. More research is going on in the field, for example — recent advances in the usage of LSTM and Recurrent Neural Networks for forecasting.

Objectives of the Webinar:

- Getting familiar with Linear regression and its methods;
- Innovation and design including design thinking.
- To expose students to current applications in the field of digital image processing.
- To study image processing operations.
- To understand image processing algorithms.

Program Schedule:

Day1: 26.05.2021

Speaker: Dr. Mitul Kumar Ahirwal , Assistant Professor, MANIT Bhopal (M.P.)

1.	Webinar Introductory Speech About the Programme	By Dr. Dileep Kumar Sahu	26/05/2021	11.00–11.05 a.m.
2.	Address By Principal Sir,Dr.R.N.Singh	Dr.R.N.Singh	26/05/2021	11.05–11.10 a.m.
3.	Welcome Speech by Head of Department	Dr.Durgesh Kumar Kotangle	26/05/2021	11.10-11.15 a.m.
4.	Introduction of Speaker	Prof. Latika Tamrakar	26/05/2021	11.15-11.20 a.m.
5.	Lecture start by	Dr.Mitul KumarAhirwal	26/05/2021	11.20–1.00 pm.
6.	Open Question/Answer	By All Participants	26/05/2021	1.00–1.15 p.m
7.	ConcludingRemark	Dr.DileepKumarSahu	26/05/2021	1.15to1.20p m
8.	Vote of thanks	Dr.Durgesh Kumar Kotangle	26/05/2021	1.20–1.25 pm

Day2 : 27.05.2021

Speaker: Dr. Amitesh Jha, Assistant Professor, GGU Bilaspur (C.G.)

1.	Welcome Speech by	By Dr Dileep Kumar Sahu	27/05/2021	11.00–11.05 a.m.
2.	Welcome Speech by	Dr.Durgesh Kumar Kotangle		
3.	Introduction of Speaker	Dr.Dileep KumarSahu	27/05/2021	11.15-11.20 a.m.
4.	Lecture start by	Dr.Amitesh Jha	27/05/2021	11.20–12.30 pm.
5	Open Question/Answer	By All Participants	27/05/2021	12.30–12.45 p.m
6.	Concluding Remark	Dr.Dileep Kumar Sahu	27/05/2021	12.45-12.50pm
7.	Vote of thanks	Prof. Latika Tamrakar	27/05/2021	12.55-01.00 pm

Day 3: 28.05.2021

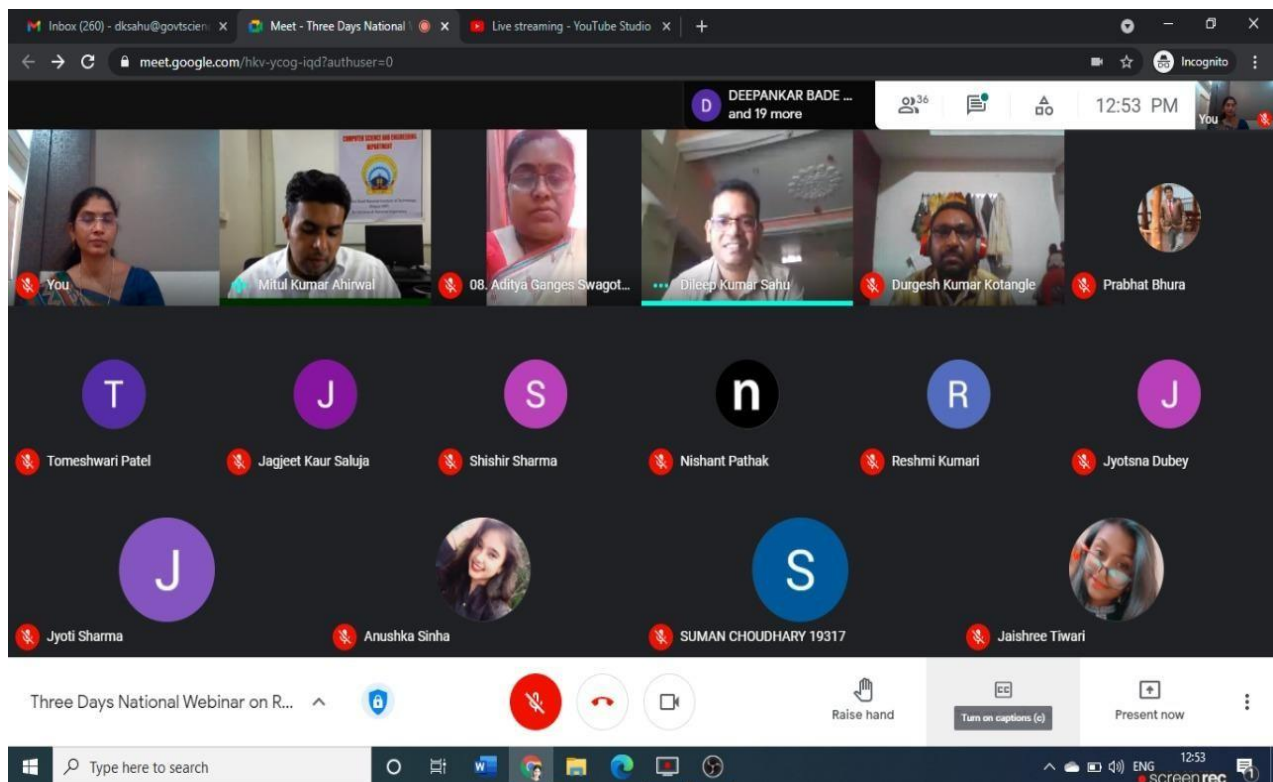
Speaker: Dr. Kartikey Pandey, ACME Academy Raipur (C.G)

1	Program start by	By Dr. Dileep Kumar Sahu	28/05/2021	11.00–11.05 a.m.
2	Welcome Speech and Introduction of Speaker by	Dr. Durgesh Kumar Kotangle	28/05/2021	11.15-11.20 a.m.
3.	Lecture start by	Dr. Kartikey Pandey	28/05/2021	11.20–12.30 pm.
4.	Open Question/Answer	By All Participants	28/05/2021	12.30–12.45 p.m
5.	Concluding Remark of Three days Webinar	By Dr.Dileep Kumar Sahu	28/05/2021	12.45to12.50 pm
6.	Vote of thanks	Prof. Latika Tamrakar	28/05/2021	12.55-01.00 pm
7.	Programme end declaration	Dr. Dileep Kumar Sahu	28/05/2021	1.25-1.26p.m.

Day1 Proceeding: (26/05/2021)

The workshop was inaugurated By Speaker Dr. Mitul kumar ahirwal, Asst. Prof. Dept. of computer science and engineering MANIT BHOPHAL, along-with the Special Speaker of the function Dr. Amitesh jha , Asst. Prof . Dept of computer science & IT,GGU, Bilaspur. Other dignitaries present on the dais were Mr. Kartikey Pandey Asst. Prof. ACME Academy and Dr. R. N Singh, the Principal of Govt. V.Y.T. PG. Autonomous College, Durg.

Convener of the workshop Dr. Jagjeet kaur Saluja(IQAC Co- Ordinator) and Mr. Durgesh Kumar Kotangle, (Dept of Computer Science). Welcome speech & the objective of the Workshop.



Dr.Mitul Kumar Ahirwal, in his address, mentioned the Regression and artificial neural Network. He mentioned that Linear Regression and AAN predict an output variable as a function of the inputs. In this review, summarize the differences and similarities of these models from a technical point of view and compare them with other machine learning algorithms.

Mitl Kumar Ahirwal is presenting

Reeya 18591 and 54 more

11:54 AM

Iterations (Training)

- Now iterate for 20 times
- 4 complete epochs of all samples
- Plot the 20 values of error
- Predict the value of **Y** as **P** with final values of **B0** and **B1**
- Calculate the RMSE
- Compare the RMSE with previous method

Dr. Mitul Kumar Ahirwal (MANIT Bhopal)

08. Aditya Ga... Mitul Kumar ... Kajal Gulhare

Prabhat Bhura Dileep Kumar ... Tomeshwari ...

Jagjeet Kaur ... Durgesh Kum... Shishir Sharma

Three Days National Webinar on R... Raise hand Turn on captions Mitul Kumar Ahirwal is presenting

Regression analysis is a reliable method of identifying which variables have impact on a topic of interest. The process of performing a regression allows you a confidently determine which factors matter most, which factors can be ignored and how these factors influence each other.

Mitl Kumar Ahirwal is presenting

Ramashish Singh and 44 more

12:19 PM

Neuron and its Model

impulses carried toward cell body

dendrites

nucleus

cell body

branches of axon

axon

axon terminals

impulses carried away from cell body

Inputs $x_1, x_2, x_3, \dots, x_n$

Weights $w_1, w_2, w_3, \dots, w_n$

Sum Σ

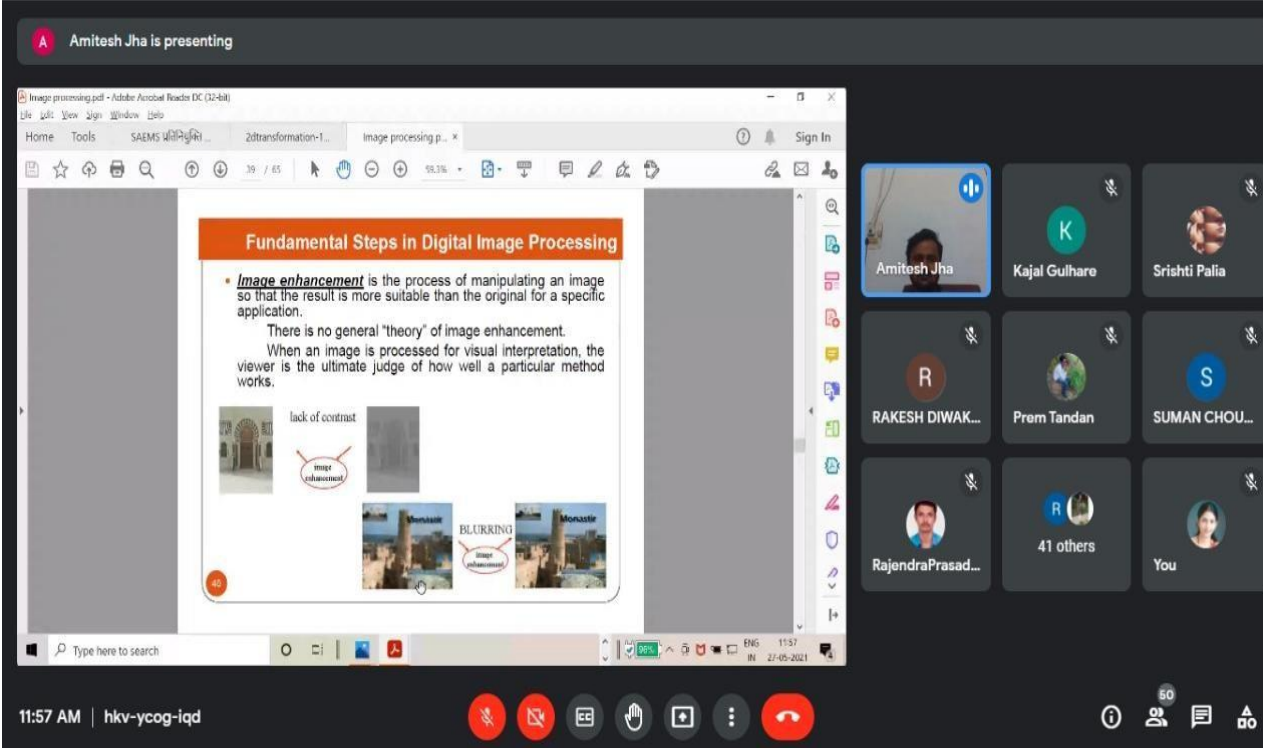
Activation Function f

Output

Three Days National Webinar on R... Raise hand Turn on captions Mitul Kumar Ahirwal is presenting

Day2 Proceeding: (27/05/2021)

The day2 (27/05/2021)session started with a discussion talk by Dr. Amitesh jha,He discussed the digital image processing.He showed various operations of image processing such as image enhancement. The idea behind enhancement techniques is to bring out detail that is obscured, or simply to highlight certain features of interest in an image, such as changing brightness & contrast.



The screenshot shows a Zoom meeting interface. At the top, it says "Amitesh Jha is presenting". The main window displays a presentation slide titled "Fundamental Steps in Digital Image Processing". The slide content includes:

- **Image enhancement** is the process of manipulating an image so that the result is more suitable than the original for a specific application.
- There is no general "theory" of image enhancement.
- When an image is processed for visual interpretation, the viewer is the ultimate judge of how well a particular method works.

The slide also features two examples of image enhancement:

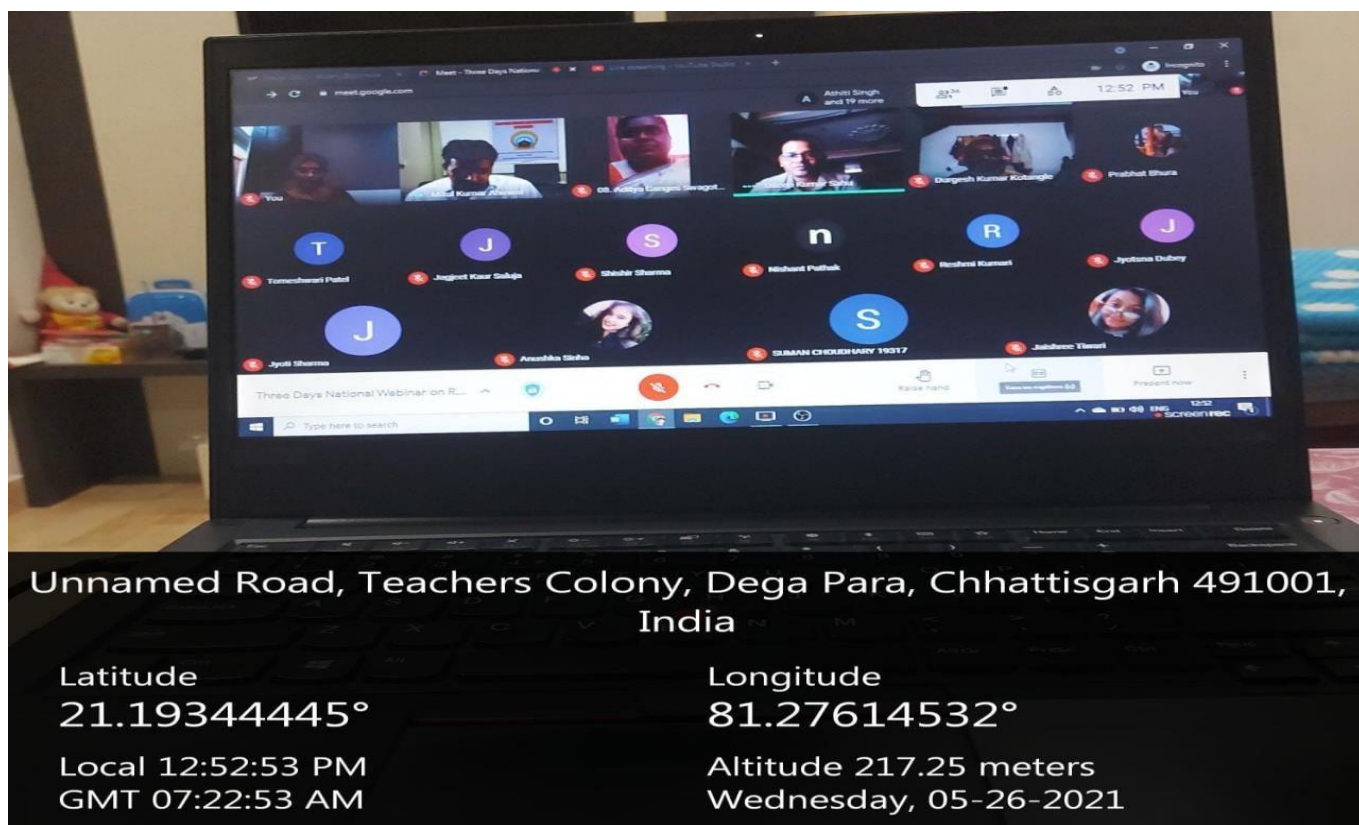
- lack of contrast:** Shows a low-contrast image of a building entrance on the left and a high-contrast, enhanced version on the right. A red circle with "Image enhancement" is drawn around the enhanced image.
- BLURRING:** Shows a sharp image of a building on the left and a blurred version on the right. A red circle with "Image enhancement" is drawn around the blurred image.

The Zoom interface includes a grid of participant avatars on the right, with names like Amitesh Jha, Kajal Gulhare, Srishti Palia, RAKESH DIWAK..., Prem Tandan, SUMAN CHOU..., RajendraPrasad..., 41 others, and You. The bottom of the screen shows the Zoom control bar with icons for mute, video, chat, and other functions. The system tray at the bottom indicates the time as 11:57 AM and the user as hkv-ycog-iqd.

The processing of images is faster and more cost effective. One needs less time for processing, as well as less film and other photographing equipment. It is more ecological to process images. No processing or fixing chemicals are needed to take and process digital images.

Day3 Proceeding: (28/05/2021)

The day3 (28/05/2021)session started with a brief discussion by Mr. Kartikey Pandey about career counseling..He discussed What to do after graduation in field of Computer Science?.Your computer science course may include a year in industry, which will give you the opportunity to develop commercial skills..After graduation working as programmers and software development professionals, while one in ten (9%) are employed as IT and telecommunications professionals.



Dr.R.N Singh, Principal, Govt. V.Y.T. PG. Autonomous College, Durg, addressed the concluding session of the webinar. She showed her content mentioning the interest of the participants for the webinar as approximately 100 participants were benefited by this webinar who came from various places of Chhattisgarh. She appreciated the organizing team for conducting this type of webinar and expected such a webinar in the future also.

This was followed by a brief feedback session from the participants of the webinar. All participants expressed their satisfaction about the webinar and overall coordination of the faculties of the department as well as the whole program.

The webinar concluded with a vote of thanks extended by Mrs. Latika Tamrakar. The

webinar was ended with happy note from everyone.