



GURU NANAK COLLEGE (AUTONOMOUS)

Affiliated to University of Madras and Re-Accredited at "A" Grade by NAAC

Guru Nanak Salai, Velachery, Chennai – 600042.

School of Sciences

Department of Mathematics (Shift II)

Event Title	An Overview of MATLAB	
Category	National Webinar	
Date	From :22.07.2020	To :22.07.2020
No. of Resource Person	1	
No. of Participants	250	

(1) Report Description

The National webinar on "An Overview of MATLAB" was delivered by the resource person Dr.T.Gunasekar, Associate Professor of Mathematics, VelTech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi, Chennai-62. Students, Research scholars and faculties from our Gurunanak College and other educational institutes from various part of nation around 250 members have participated enthusiastically and the event went on successfully. The resource person elaborately and patiently cleared the doubts raised by our participants.

(2) Report

- The basics of MATLAB and its application in various field have overviewed.
- Calculation , Some functions, Scalar and Vector in MATLAB was discussed.
- Matrix operation, Plotting of curves, Multiple Graphs Concepts was presented using MATLAB tool.
- Ordinary and Partial Differential equation, Multiple integrals, Transform, Fourier series and Numerical methods concepts was also discussed detail.
- All doubts of participants about the mentioned concepts was addressed and explained in appreciable manner by the presenter.

(3) Invitation Copy



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DEPARTMENT OF MATHEMATICS (SHIFT – II)
presents
Webinar on “An Overview of MATLAB”

Resource person : Dr. T. GUNASEKAR,
Associate Professor of Mathematics,
Vel Tech Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology,
Avadi, Chennai- 62

DATE : 22nd July 2020
TIMING : 5.00 p.m to 6.00 p.m
No Registration fee

Open to all Students and Faculty members
REGISTRATION LINK: <https://forms.gle/1No7WKF07ugHHe1j7>
Registration is free and E- certificate will be provided to all participants

Dr.M.G.RAGUNATHAN
PRINCIPAL

Mr. MANJIT SINGH NAYAR
GENERAL SECRETARY AND
CORRESPONDENT

(4) Certificate Copy



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CERTIFICATE OF PARTICIPATION


This certifies that
{{full name}}
{{other identifiers}}

has participated in the National Webinar on “An Overview of MATLAB”
organised by Department of Mathematics (Shift-II) on 22nd July 2020.


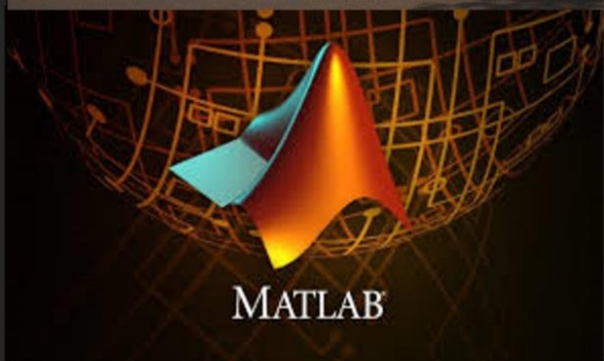

Dr.M.G.RAGUNATHAN
PRINCIPAL


Mr. MANJIT SINGH NAYAR
GENERAL SECRETARY AND
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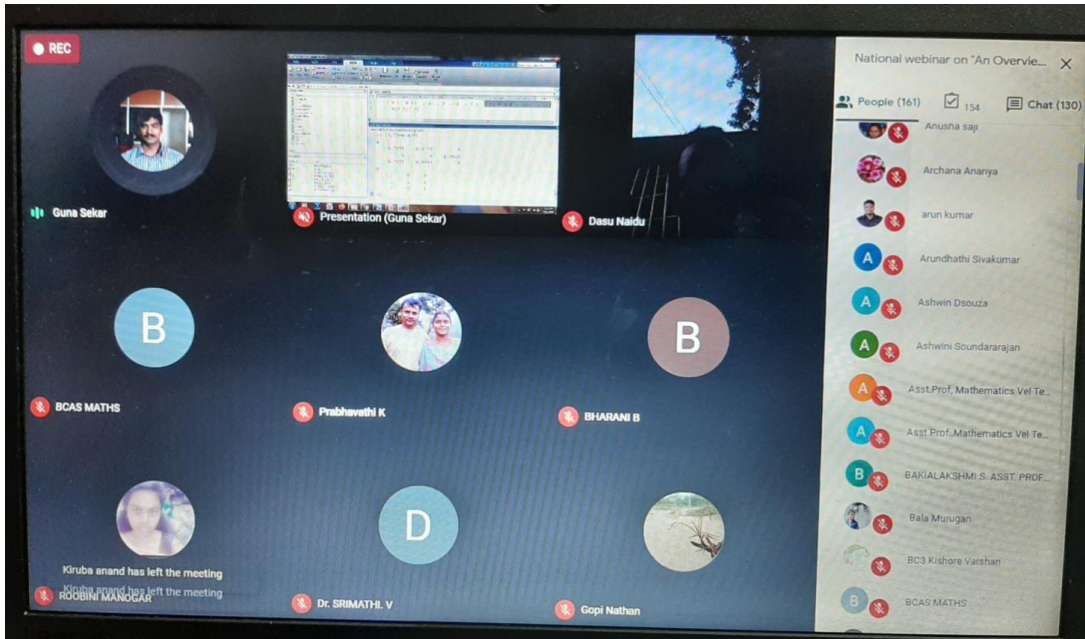
(5) Photos



**National Webinar
on "An Overview
of MATLAB"**
22-07-2020
By
Dr. T. Gunasekar
VelTech
University
tguna84@gmail.com

An Overview of MATLAB



REC

Guna Sekar

Presentation (Guna Sekar)

Dasu Naidu

BCAS MATHS

Prabhavathi K

BHARANI B

Kiruba anand has left the meeting

ROBIN MANICKAN

Dr. SRIMATHI. V

Gopi Nathan

National webinar on "An Overvie... X

People (161) 154 Chat (130)

- Anusha saj
- Archana Ananya
- arun kumar
- Arundhathi Sivakumar
- Ashwin Dsouza
- Ashwini Soundararajan
- Asst.Prof. Mathematics Vel Te...
- Asst Prof. Mathematics Vel Te...
- BAKIALAKSHMI S. ASST. PROF.
- Bala Murugan
- BC3 Kishore Varshan
- BCAS MATHS

REC Guna Sekar is presenting 22-07-2020

Draw the four curves $\sin x$, $\cos x$, e^{-x} , $\sin 3x$ in one window

```

clc
clear all
x=0:1:2*pi;
subplot(2,2,1);
plot(x,sin(x),'b*');
title('sin(x)')
subplot(2,2,2);
plot(x,cos(x),'r-o');
title('cos(x)')
subplot(2,2,3);
plot(x,exp(-x),'g. ');
title('exp(-x)')
subplot(2,2,4);
plot(x,sin(3*x),'m-o');
title('sin(3x)')

```

Dr. T. Gunasekar An Overview T.SAKTHI PRIYA Very useful session

National webinar on "An Overvi... Turn on captions Guna Sekar is presenting

REC

MULTIPLE GRAPHS

We can draw multiple graphs on the same plot. For example if $y=\cos x$ and $y=\cos(2x)$ to be plotted in the same graph.

```

>> x = linspace(-10,10,1000);
>> plot(x,cos(x),'b',x,cos(2*x),'g. ');
>> legend('cos(x)', 'cos(2x)', 'location','northeast')
>> xlabel('x axis')
>> ylabel('y axis')
>> grid on

```

Dr. T. Gunasekar An Overview of MATLAB 49

meet.google.com is sharing your screen. Stop sharing Hide 5 mins

National webinar on "An Overvi... (168) 11

You Guna Se... THILAKR... Guna Se...

REC Guna Sekar is presenting

Taylor's Series Expansion

```

>> syms x y
>> f=exp(x)*cos(y);
>> t=taylor(f,[k,y],[0,0], 'order',5)
t =
x^4/24 + x^3/6 - (x^2*y^2)/4 + x^2/2 - (x*y^2)/2 + x +
y^4/24 - y^2/2 + 1
>> pretty(t)

```

$$\begin{array}{cccccccc}
 4 & 3 & 2 & 2 & 2 & 4 & 2 & \\
 x & x & x & y & x & x & y & y \\
 + & + & + & + & + & + & + & + \\
 24 & 6 & 4 & 2 & 2 & 24 & 2 & \\
 \end{array}$$

Dr. T. Gunasekar An Overview of MATLAB

National webinar on "An Overvi... (172)

Varthini R... vasantini... vasugi pa... Venkatesa... vignesh d... Vijaya lak... VijayaKum... Vijayaragh... Yash Prit...

Lagrange's Interpolation:

25-07-2020

```
clc
clear all
x=input('Enter the x values: ')
y=input('Enter the y values: ')
a=input('Enter to find interpolated values x= ');
term1=((a-x(2))*(a-x(3))*(a-x(4)))*y(1)/
((x(1)-x(2))*(x(1)-x(3))*(x(1)-x(4)));
term2=((a-x(1))*(a-x(3))*(a-x(4)))*y(2)/
((x(2)-x(1))*(x(2)-x(3))*(x(2)-x(4)));
term3=((a-x(1))*(a-x(2))*(a-x(4)))*y(3)/
((x(3)-x(1))*(x(3)-x(2))*(x(3)-x(4)));
term4=((a-x(1))*(a-x(2))*(a-x(3)))*y(4)/
((x(4)-x(1))*(x(4)-x(2))*(x(4)-x(3)));
disp('Interpolation of y(x)=')
m=term1+term2+term3+term4;
disp(m)
```