



Department of Electronics and Communication Engineering LNCTE Bhopal

Publicity Report of August 2021

- An **Online In-house Internship** session organised by Department of EC LNCTE on **06-08-2021 10:30 to 11:30AM** for the students of **EC 5th Sem LNCTE** Students. The session was too Interactive, Informative and interesting for students. The session was delivered successfully under the guidance of **Dr. Abhinav Bhargava (HOD EC LNCTE)** coordinated by **Prof. Santosh Kumar Jha (Assistant Professor)**.

ISTE CHAPTER LNCTE
Webinar on:
**“QUALITY EDUCATION,
ACCREDITATION AND
TEACHER DEVELOPMENT”**
IN PERSPECTIVE OF NEP 2020

Friday, **6th** August, 2021
10:30 AM onwards

<https://bit.ly/3ibXxIw>
Meeting ID: 819 2240 4954
Passcode: 12345

————— Coordinators —————

DR. N. S. RAGHAVA
Moderator
Professor, Delhi
Technological University

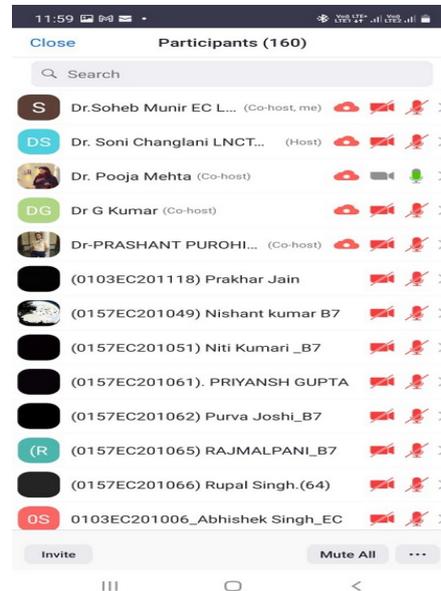
Dr. Abhinav Bhargava
Prof. Santosh Kumar Jha

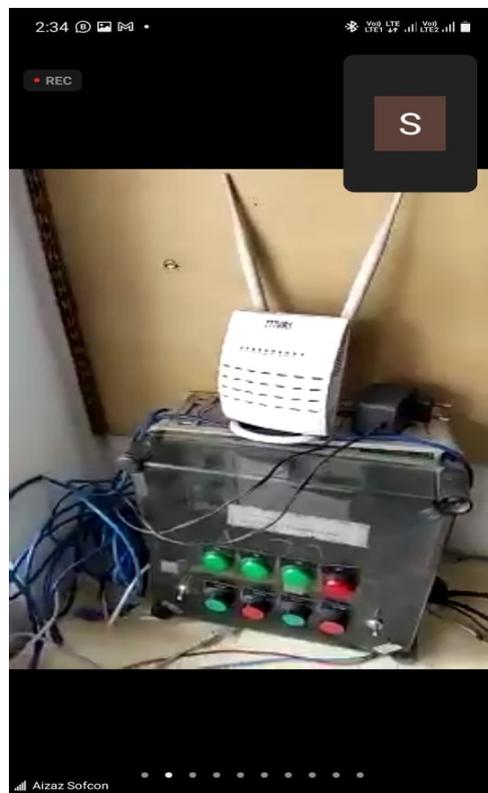
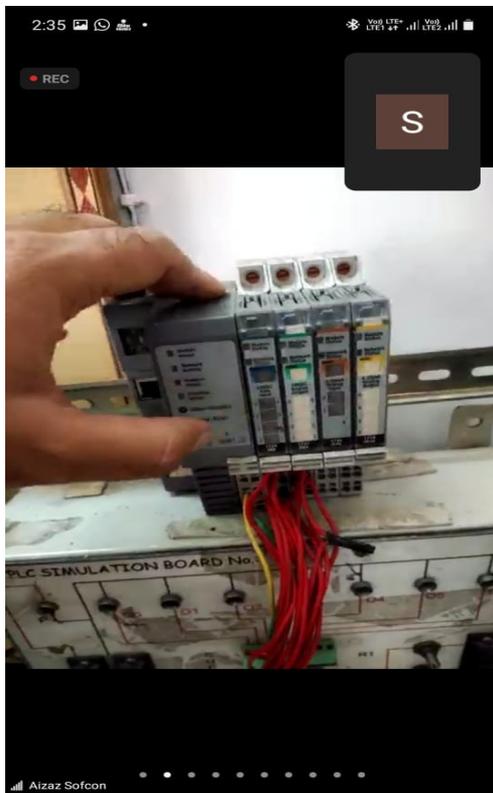
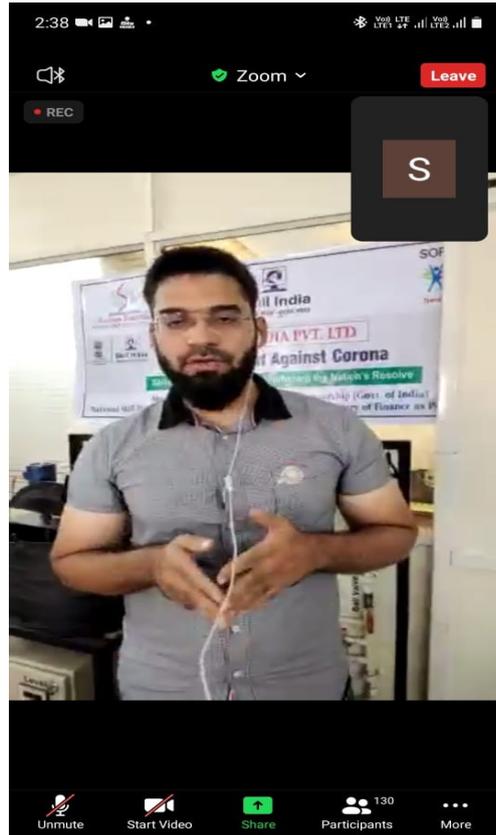
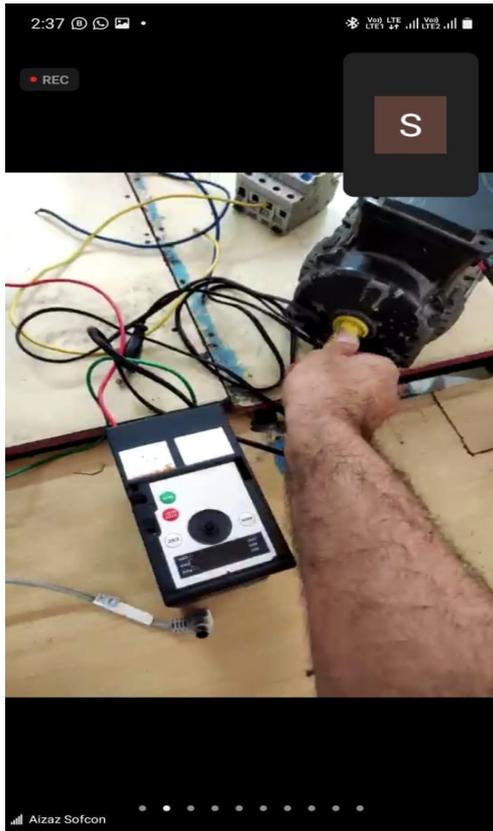
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LAKSHMI NARAIN COLLEGE OF TECHNOLOGY EXCELLENCE, BHOPAL

- An **Online In-house Internship** session organised by Department of EC LNCTE from **09-08-2021 to 11-08-2021 11:30AM to 02:00 PM)** for the students of **EC 1st year LNCTE Students**. The session was too Interactive, Informative and interesting for students. The session was delivered successfully under the guidance of **Dr. Abhinav Bhargava (HOD EC LNCTE)**.







LAKSHMI NARAIN COLLEGE OF TECHNOLOGY EXCELLENCE, BHOPAL

- An **Online Webinar** has been organised by Department of EC LNCTE on **“Statistical Signal processing for wireless communication”** by **Dr. Ravi Tiwari, “Sr. Assistant Professor, MITS”** on **Tuesday 24-08-2021** from **11:45AM to 12:45 PM** for the students of **EC 5th semester LNCTE** Students. The session was too Interactive, Informative and interesting for students which deals with the deep knowledge of wireless communication. The session was delivered successfully under the guidance of **Dr. Abhinav Bhargava (HOD EC LNCTE)**, Coordinated by **Prof. Rohit Kumar Rathor (Assistant Professor)**.

Department of Electronics & Communication

Webinar

On

STATISTICAL SIGNAL PROCESSING FOR WIRELESS COMMUNICATION

AUG 24 | 11:45 AM

Dr. Ravi Tiwari
Sr. Assistant Professor
Madanapalle Institute of Technology & Science (MITS), Madanapalle

Coordinator
Prof. Rohit Kumar Rathor

Organiser
Dr. Abhinav Bharagava

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Zoom Meeting

Recording...

Participants (86)

Find a participant

Sanket Chou... (Co-host, me) [Mute] [Unmute] [Close]

Dr. Soni Changlani L... (Host) [Mute] [Unmute] [Close]

Dr. Ravi Tiwari (Co-host) [Mute] [Unmute] [Close]

PRASHANT CHAT... (Co-host) [Mute] [Unmute] [Close]

Vikas Kumar (Co-host) [Mute] [Unmute] [Close]

(0157EC191060)Krishna Yadav [Mute] [Unmute] [Close]

(0157EC191078)Pooja [Mute] [Unmute] [Close]

(0157EC191080)Prabhat kumar [Mute] [Unmute] [Close]

(198) Saket Anand [Mute] [Unmute] [Close]

0103EC 191183 Sumit Kumar [Mute] [Unmute] [Close]

0103EC191155 Riya Singh [Mute] [Unmute] [Close]

0103EC191156 Riya Varghese [Mute] [Unmute] [Close]

0103EC191158_Ruchi Gupta [Mute] [Unmute] [Close]

Invite Mute All

Chat

11:54 AM 8/24/2021



Recording...

OUTLINE

1. Introduction to wireless communication
2. Evolution of Mobile Radio Communication
3. GSM Architecture Overview
4. Issues vital to cellular network
5. Heterogeneous networks
6. Mobility Management in HetNets
7. Statistical Modeling of Handover-count Measurements
8. Maximum Likelihood Estimator for Velocity Estimation in HetNets.
9. Minimum-variance-unbiased Estimate of User Velocity.
10. Bayesian MMSE Estimation of Velocity in HetNets
11. Mobility state detection (MSD)

PRASHANT CHATURV... Sanket Choudhary

Dr. Soni Changl... 0103EC191163_...

Dr. Soni Changlani L... 0103EC191163_Sajal...

0176EC191041... Dr. Ravi Tiwari

0176EC191041 Madh... Dr. Ravi Tiwari

Shreyansh Dwiv... 0157EC191061_...

Shreyansh Dwivedi 0157EC191061_Kuma...

0176EC191023D... Jayashree

0176EC191023Devan... Jayashree

Vikas Kumar

Gagandeep Singh 01...

Recording...

WIRELESS COMMUNICATION

It involves the transmission of information over a distance without the help of wires, or any other forms of electrical conductors.

Features of Wireless Communication

- ◆ The transmitted distance can be anywhere between a few meters and thousands of kilometers.
- ◆ It can be used for cellular telephony, wireless access to the internet, wireless home networking, etc.
- ◆ Other examples of applications of radio wireless technology include GPS units, wireless computer mice, keyboards and headsets, headphones, radio receivers, satellite television, and cordless telephones.



PRASHANT CHATURV... Sanket Choudhary

Dr. Soni Changl... Dr. Soni Changlani L...

0103EC191163_... 0103EC191163_Sajal ...

0176EC191041... 0176EC191041 Madh...

Dr. Ravi Tiwari

Recording... You are viewing Dr. Ravi Tiwari's screen View Options

Mobile:

- Able to move easily

Mobile Communication:

- Ability to Communicate with person who is moving

Communication

- Voice and Data

Channel

- Free space / wireless channel



PRASHANT CHATURV... Sanket Choudhary

Dr. Soni Changl... Dr. Soni Changlani L...

0103EC191163_... 0103EC191163_Sajal ...

0176EC191041... 0176EC191041 Madh...

Dr. Ravi Tiwari

Unmute Start Video Security Participants Chat Share Screen Pause/Stop Recording Breakout Rooms Reactions Apps Leave



Recording... You are viewing Dr. Ravi Tiwari's screen View Options

12:10 74%

MULTIPLE ACCESS TECHNIQUES: HOW TO ALLOCATE USERS

Frequency Division Multiple Access (FDMA)
1G Cellular (AMPS)

Time Division Multiple Access (TDMA)
2G TDMA
3G TDMA

All sessions based on a code

Code Division Multiple Access (CDMA)
2G CDMA (IS-95)
3G CDMA

Unmute Start Video Security Participants Chat Share Screen Pause/Stop Recording Breakout Rooms Reactions Apps Leave

Recording... 12:10 74%

GSM ARCHITECTURE OVERVIEW

GSM Architecture Overview

MS (Mobile Station) connects to BSS (Base Station Sub-system) via Air Interface (GSM). BSS includes BTS (Base Transceiver Station) and BSC (Base Station Controller). BSS connects to NSS (Network Sub-system) via Abis Interface. NSS includes MSC (Mobile Switching Center), VLR (Visitor Location Register), HLR (Home Location Register), AUC (Authentication Center), and EIR (Equipment Identity Register). NSS connects to PSTN (Public Switched Telephone Network) via A Interface. OMC (Operations and Maintenance Center) is connected to MSC.

MSC – Mobile Switching Center
BSC – Base Station Controller
BTS – Base Transceiver Station
TRX – Transceiver
EIR – Equipment Identity Register
PSTN – Public Switched Telephone Network

BSS – Base Station Sub-system
HLR – Home Location Register
VLR – Visitor Location Register
AUC – Authentication Center
OMC – Operations and Maintenance Center

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0157EC191061_Kuma...

Zoom Meeting Recording... 12:34 70%

MASS FUNCTION OF HANDOVER-COUNT MEASUREMENTS

CHAPTER 2

$T=15s$

Fig. 2.2 For $\lambda = 200 \text{ BSs/km}^2$

Fig. 2.3 For $\lambda = 1000 \text{ BSs/km}^2$

- Accuracy is lower as the PMF for different velocities are overlapped.
- PMFs are significantly separated leading to better velocity estimation.

As we observe that with increase in BS density and velocity, the PMF of handover count resembles Gaussian and normal distribution.

24

0176EC191041...
0176EC191041 Madh...
0157EC191061...
0157EC191061_Kuma...

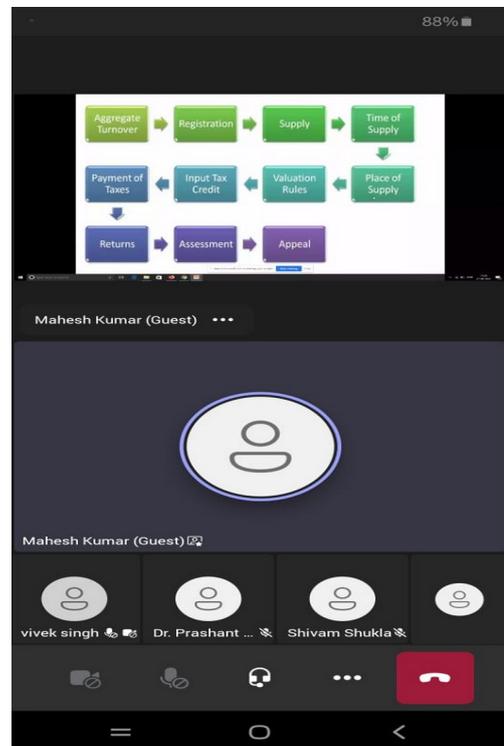
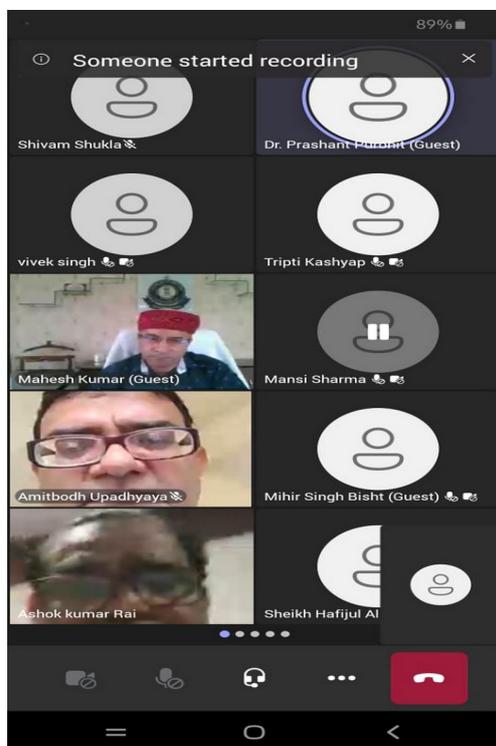
12:34 PM 8/24/2021

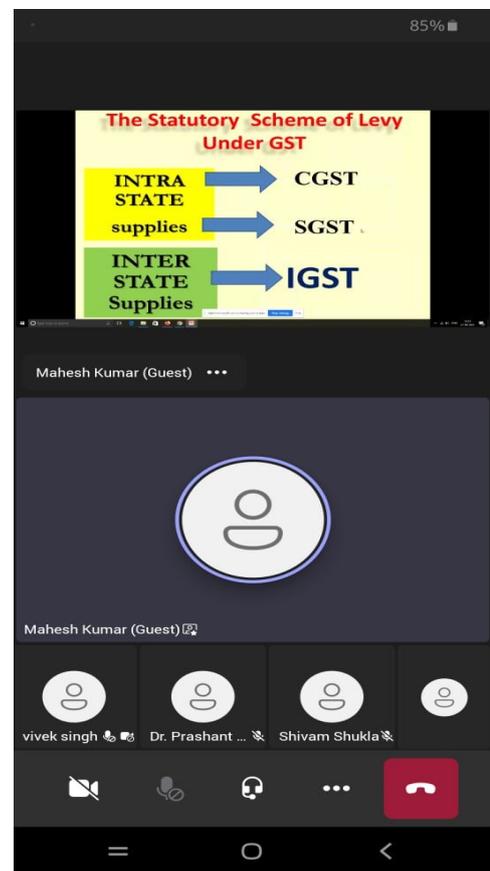
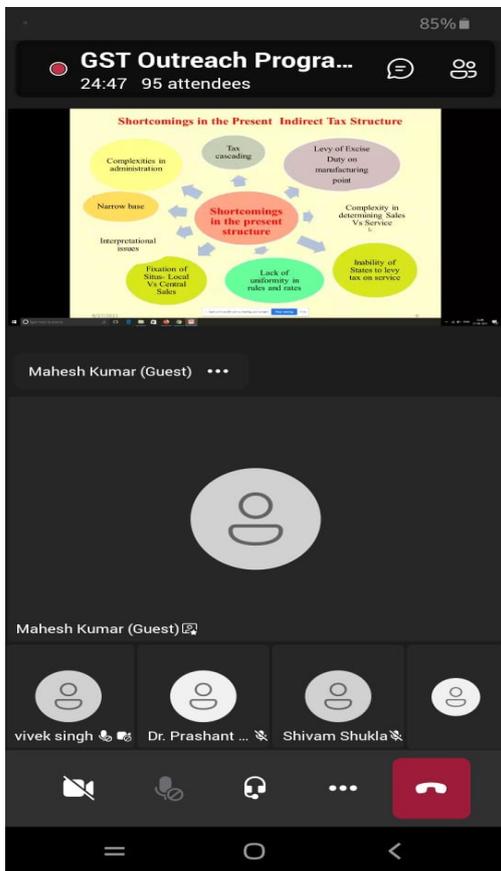
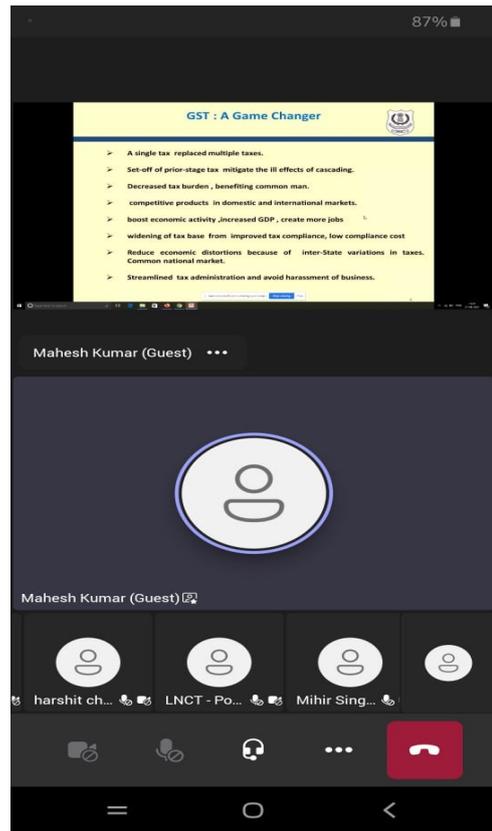
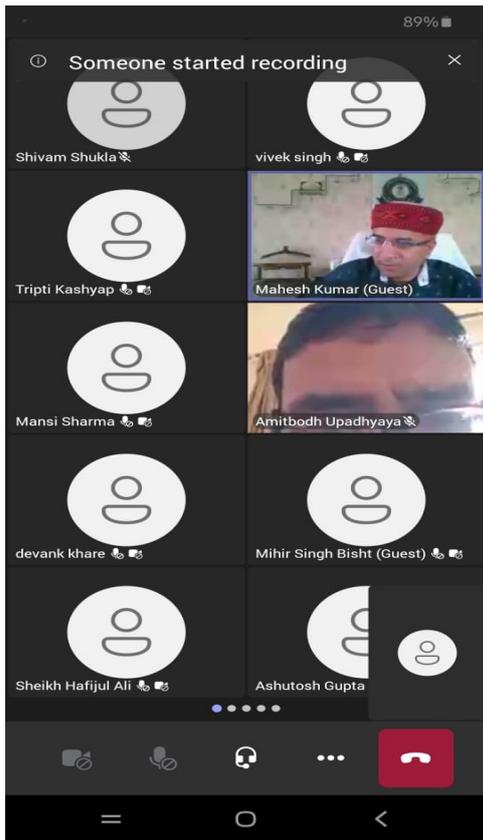


LAKSHMI NARAIN COLLEGE OF TECHNOLOGY EXCELLENCE, BHOPAL

- An Online Webinar has been organised by Department of EC LNCTE on “Basics of Goods & Services Tax (GST)” by Mr. Mahesh Kumar Yadav, “IRS- Deputy Director, NACIN, ZC Bhopal” on Friday 27-08-2021 from 11:45AM to 12:45 PM for the students of EC 5th semester LNCTE Students. The session was too Interactive, Informative and interesting for students which deals with the deep knowledge of GST. The session was delivered successfully under the guidance of Dr. Abhinav Bhargava (HOD EC LNCTE) coordinated by Prof. Neeta Sharma (Assistant Professor).

The poster features the LNCT Group of Colleges logo at the top left, along with accreditation logos for 20, NEA, NIRF, and UGC. The main title is "Webinar on Basics of Goods & Services Tax (GST)" in red and black text. Below it, it says "Organized by National Academy of Customs Indirect Taxes & Narcotics, Zonal Campus Bhopal". The date and time are "27th August 2021 11:45 AM Onward". The speaker is "Shri Mahesh Kumar Yadav, IRS - Deputy Director, NACIN, ZC Bhopal." The coordinators are "Dr. Abhinav Bhargava" and "Prof. Neeta Sharma". A circular portrait of the speaker is on the right. The bottom of the poster contains logos for various LNCT branches (JNCT, RISHIRAJ, CHOUKSEY, SABALPUR) and contact information: "www.LNCT.ac.in, www.LNCTU.ac.in | Follow Us on [social media icons] | 744077711/222/555".







- An Online Webinar has been organised by Department of EC LNCTE on “Model based Programming for Embedded system using MATLAB & Simulink” by Mr. Subrato Howlader, “Sr. Trainer Instructor, CRISP” on Saturday 28-08-2021 from 11:45AM to 12:45 PM for the students of EC 5th semester LNCTE Students. The session was too Interactive, Informative and interesting for students which deals with the deep knowledge of How Simulink of Embedded devices can be performed on MATLAB. The session was delivered successfully under the guidance of Dr. Abhinav Bhargava (HOD EC LNCTE), Coordinated by Prof. Rajdeep Shrivastava (Associate Professor).

WEBINAR Department of Electronics & Communication
ISTE CHAPTER LNCTE

Model-based Programming for Embedded system Using Matlab and Simulink.

Date:- 28-08-2021
Time:- 11:40am

Organiser:
Prof. Rajdeep Shrivastava
(Associate Professor)

Guided By:
Dr. Abhinav Bhargava
HOD EC LNCTE

Trainer Subrato Howlader
Sr Trainer Instructor
CRISP INDIA

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MATLAB R2020a

Command Window

```
New to MATLAB? See resources for Getting Started.  
>> a=arduino  
Updating server code on board Uno (COM9). This may take a few minutes.  
/
```

```
log10(5)  
log10(2)  
%-- 8/7/2021 4:20 AM --%  
doc  
%-- 8/25/2021 2:19 AM --%  
- a=arduino('COM5','nano')  
- a=arduino('COM9','uno')  
readDigitalPin(a,'D2')  
readVoltage(a,'A0')  
%-- 8/26/2021 1:47 AM --%  
- target_installer  
- targetinscaller  
- targetinscaler  
- targetinscaler  
supportPackageInstaller  
%-- 8/27/2021 10:25 PM...  
a=arduino  
clc  
clear all\  
clear all  
clc  
EXIT  
%-- 8/27/2021 11:57 PM...  
a=arduino
```



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