

Date:- 09-July-2020

Sindhu S

Course:- MATLAB Onramp

AA218EC049

4th Sem. A Sec

• Review problems:-

• project - Electricity Usage

→ Electricity data is stored in a file named electricity.mat. load that MAT-file into MATLAB.

→ load electricity
usage

→ Usage(2,3) = 9.74

→ Usage(:,1) = res

→ Comm = Usage(:,2)

ind = Usage(:,3)

→ yrs = (1991:2013)'

→ plot(yrs, res, "b--")

hold on

plot(yrs, Comm, "k:")

plot(yrs, ind, "m-")

hold off

→ title("July Electricity Usage")

legend("res", "Comm", "ind")

• Audio frequency

• load('chord.mat')

$n = \text{numel}(y)$

$t = 0:n-1$

• $t = t / fs$

$\text{plot}(t, y)$

• $y_{fft} = \text{abs}(\text{fft}(y))$

• $f = 0:n-1$

• $f = f * fs/n$

$\text{plot}(f, y_{fft})$

$x\text{lim}([0, 1000])$

• Import tool → Importing Data

→ $d = \text{elements.Density}$

→ $\text{elements.Mass} = \text{elements.Density} \cdot$

elements.Volume

→ $\text{elements} = \text{sortrows}(\text{elements}, \text{'Mass'})$

• logical indexing :-

→ $\text{test} = P_i < 4$

→ $\text{test} = V_1 < 4$

→ $V = V_1(V_1 < 4)$

→ $S = \text{Sample}(V_1 < 4)$

→ $V_1(V_1 < 4) = 0$

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AA18E0A9

Chapter 1:-

Everything is Connected

1. Digital Transformation
 2. Digitization Transforms Business
 3. The Evolution of Digital transformation
- Lab - How Connected are you?

- The impact of digital transformation of Business

- Sensors are everywhere generating massive amounts of data.

- Introduction to packet tracer

- Packet tracer and Cabling Devices

Since packet tracer simulates networks and network traffic, the physical aspects of these networks also need to be simulated.

- Networking is the foundation

- Network types:-

1. personal Area Network (PAN)
2. Local area Networks
3. Wide area Networks

4. Wireless network

- packet tracer - create a simple network using packet tracer

• Imagien a New intelligent Sensors

• the Benefits of Connecting these
IoT Devices

• Advantages & Disadvantages of
IoT Devices

• The growth of IoT Devices

• Explore a Smart home

• Adding IoT devices to a Smart
home

• Accessing and Monitoring an
IoT network