

**A**  
**Report**

*On*

**Online Workshop**

*On*

**Virtual Lab 2020**

**By Virtual Lab Team, IIT Delhi**  
**At Department Level**



**Internal Quality Assurance Cell**



**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Race Course Road, Gola Ka Mandir, Gwalior, M.P. 474005

Website: [www.mitsgwalior.in](http://www.mitsgwalior.in)



## WORKSHOP REPORT OF VIRTUAL LABS

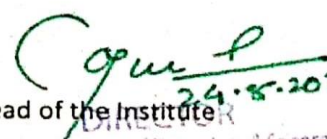


An online Workshop on Virtual Labs was organized successfully on **22/08/2020** for **Madhav Institute of Technology and Science, Gwalior, Madhya Pradesh**, for Faculty members & Students from various disciplines (Applied Sciences, CSE, ECE/EE, ME & CE) by Virtual Labs team, IIT Delhi. Virtual Labs mentors for this workshop were **Mr. Tanmay Das, Mr. Prateek Sharma & Mr. Shivam Sundaram**. Total of **119** Faculty Members & **302** Students attended the workshop. The detailed report of the workshop is given below:

Session	Time	Discipline	Labs / Experiments Demonstrated	No of Students attended (X)	No of Faculties attended (Y)
1	02:00 - 03:00	CSE, ME, ECE/EE, CE & APPLIED SCIENCES	<ul style="list-style-type: none"><li>• Electric Circuit Lab</li><li>• Basics of HTML Lab</li><li>• Problem Solving Lab</li><li>• Electrical Machines Lab</li><li>• Metal Forming Lab</li><li>• Vibration and Acoustics Lab</li><li>• Solid State Physics Virtual Lab</li><li>• Digital Signal Processing Lab</li></ul>	302	119
<b>Total attendees (X+Y)</b>				<b>421</b>	

*\*NOTE: Photographs of this workshop will be submitted separately.*

  
24/08/2020  
Nodal Coordinator

  
24.8.2020  
Head of the Institute  
DIRECTOR  
Madhav Institute of Technology & Science  
Gwalior - 474005 (M.P.)

Zoom Meeting

Dr Vijay Bhuria Shivam Sundaram Divyam

## Motivation

Physical Distances Limit Doing Experiments

Sharing of Costly Equipment

Proliferation of Quality Labs

Participants (156)

Q Find a participant

- DV Dr Vijay Bhuria (Me)
- IQAC MITS (Host)
- SS Shivam Sunda... (Co-host)
- NG NIPUN GUPTA (Co-host)
- PB Praveen Bansal (Co-host)
- OS 0901EC191117 Sourabh rathore
- A A.K.Dwivedi
- AA ABHAY AGRAWAL
- AS abhay.soni(0901EC191006)
- A Abhishek

Unmute Start Video Participants Chat Share Screen Reactions More Leave

14:18 22-08-2020

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Virtual Labs - Physical Sciences

Virtual Labs - Physical Sciences

Not secure | vlab.amrita.edu/?sub=1&brch=282&sim=879&cnt=4

### Hall Effect

Variables

Select Procedure: Hall Effect Setup

Remove Hall Probe

Current: 1 A

Select Material: Germanium

Thickness: 0.0001 m

Hall Current: 1 mA

Show Voltage

Reset

Results

Show Result

Hall Coefficient:

Carrier Concentration:

Zoom\_cm\_ds\_mj[S...exe

2:42 PM 8/22/2020

44:34 1:36:48

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10:44 25-08-2020

### DC Circuit Simulation

Visual Circuit Advanced

RESISTANCE

3784.68

DELETE

Components

- Switch
- Bulb
- Resistor
- Wire
- Ammeter
- Voltmeter
- Non Contact Ammeter

Amrita Virtual Lab

Copyright (C) Amrita University 2009-12

### Virtual Labs - Electronics & Com

Take Snapshot Undo Reset

Browse Blocks

Now click on the line between sinusoidal block and sample block and make connection with virtual scope.

Sine Generator Sampling Block Virtual Scope

Amrita Virtual Lab

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Virtual Labs - Computer Science

ps-iitb.vlabs.ac.in/exp5/submission028854848.html

### Compile Error

```
1 #include<stdio.h>
2 #include<string.h>
3 #include<math.h>
4 int isAlphabet(char x){
5     return (x>='a' && x<='z')||(x>='A' && x<='Z');
6 }
7
8 main()
9 {char s[1001];
10 scanf("%[^\n]s",s);
11 int i=0,j=strlen(s)-1;
12 int flag=1;
13 while(i < j)
14
15     while(i < j && !isAlphabet(s[i])i++;
16     while(i < j && !isAlphabet(s[j])j--;
17     if(i==j)
18         break;
19     if( (s[i]==s[j])||abs(s[i]-s[j])==32)
20         i++,j--;
21     else{
22         flag=0;
23         break;
24 }
```

Position: Ln 1, Ch 1 Total: Ln 32, Ch 437

Language: C (gcc 4.3.2) ProblemNo: 1

Compile Run

c: In function 'main':  
c:22:3: error: expected '}', before 'break'

### HINTS

```
#include<stdio.h>
#include<string.h>
#include<math.h>
int isAlphabet(char x){
    return (x>='a' && x<='z')||(x>='A' && x<='Z');
}
main()
{char s[1001];
scanf("%[^\n]s",s);
int i=0,j=strlen(s)-1;
int flag=1;
while(i < j){
    while(i < j && !isAlphabet(s[i])i++;
    while(i < j && !isAlphabet(s[j])j--;
    if(i==j)
        break;
    if( (s[i]==s[j])||abs(s[i]-s[j])==32)
        i++,j--;
    else{
        flag=0;
        break;
    }
}
if(flag)
    printf("YES\n");
else
    printf("NO\n");
}
```

Hint Level 0 Highest Level Hint used: 4

1:07:21 1:36:48

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Virtual Labs

html-htd.vlabs.ac.in/basics-of-html/exp/html-tags/simulation.html

HOME PARTNERS CONTACT

### Write Code Section

```
1 <!DOCTYPE HTML>
2 <html>
3 <body bgcolor="red">
4 <h1>MADHAV INSTITUTE</h1>
5 </body>
6 </html>
```

### Preview Result Section

MADHAV INSTITUTE

1:11:55 1:36:48

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Virtual Labs - Electrical Engin... Rotating Magnetic Field Behavior

ven-itsg.vlabs.ac.in/Rotating%20Magnetic%20Field%20Behaviour%20in%20two%20coils(experiments.html)

1:17:02 1:36:48

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Virtual Labs - Mechanical Engin... Modal analysis on a cantilever

va-coep.vlabs.ac.in/ImpactTestCantilever/ImpactTestCantilever.html

(An Autonomous Institute of Government of Maharashtra)

**Cross Section**

0.0116 m 0.00325 m 0.190 m **Calculate**

Width(b) Height(d) Length(L)

Cross Section Area : 0.00003769 m<sup>2</sup> **Formula**

Moment of Inertia : 3.31838541e m<sup>4</sup> **Formula**

Material of Cantilever: stainless Steel

Density : 7800 kg/m<sup>3</sup>

Young's Modulus : 210 x 10<sup>9</sup> N/m<sup>2</sup>

Select the node before press "Hit The Hammer" button

**Hit the Hammer** at Node : Select

**Observe FRF** **Reset**

Observations from the plot(Frequency Response Function,FRF)  
Record the frequencies corresponding to peaks in the graph and discuss with your teacher about the reasons for differences observed,if any:

1:19:31 1:36:48

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Virtual Labs, IT Delhi - shi Virtual Labs - Mechanical Engin Virtual Lab-Dayalbagh Edu

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### Metal Forming Virtual Simulation Lab

Dayalbagh Educational Institute, Agra

## Sakshat Virtual Labs

Home Extrusion Simulation Bench Comparative Simulation Applications Special Cases Self Check Quiz

#### RadiusExtrusion

EXTRUSION PROCESS OF ALUMINUM COLD FORMING, FRICTION = HIGH, DIE ANGLE = 60, V=1000 mm/min

EXTRUSION FORCE EVALUATION DURING COLD EXTRUSION PROCESS FOR MANUFACTURING OF SPLIT SECTION

Zoom\_cm\_sks\_mj8...exe

3:22 PM 8/22/2020

1:24:24 1:36:48

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ENG 10:46 25-08-2020