



Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)
 Bachupally, Kukatpally, Hyderabad– 500 090, A.P., India. (040)66864440

Course Title: SENSORS AND MEASUREMENTS LAB (GR20A3097)

Following documents are available in Course File.

S.No.	Points	Yes	No
1	Institute and Department Vision and Mission Statements	√	
2	Academic Calendar	√	
3	Subject Allocation Sheet	√	
4	Class Time Table, Individual Timetable (Single Sheet)	√	
5	Syllabus Copy	√	
6	Course Handout	√	
7	CO-PO Mapping	√	
8	Assignment Questions with CO's		√
9	Tutorial Sheets With Solution		√
10	Sessional Question Papers, External Question Paper and Scheme of Evaluation		√
11	Previous University Question Papers		√
12	Best, Average and Weak Answer Scripts for Each Sessional Exam. (Photocopies)	√	
13	CO-PO Attainments for All Mids.		
14	Soft Copy of Notes/Ppt/Slides		√
15	Feedback From Students	√	
16	Result Analysis	√	
17	Remedial Action.		
18	Course Exit Survey		√

Course Instructor / Course Coordinator

Course Instructor / Course Coordinator



**GokarajuRangaraju Institute of EngineeringandTechnology
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Vision of the Institute:

To be among the best of the institutions for engineers and technologists with attitudes, skill and Knowledge and to become an epicentre of creative solutions.

Mission of the Institute:

To achieve and impart quality education with an emphasis on practical skills and social relevance.

Vision of the Department:

To impart technical knowledge and skills required to succeed in life, career and to help society to achieve self-sufficiency.

Mission of the Department:

- To become an internationally leading department for higher learning.
- To build upon the culture and values of universal science and contemporary education.
- To be a centre of research and education generating knowledge and technologies which lay groundwork in shaping the future in the fields of electrical and electronics engineering.
- To develop partnership with industrial, R&D and government agencies and actively participate in conferences, technical and community activities.



1. PEO and PO's (B.Tech)

1. Programme Educational Objectives (PEOs):

PEO-1: Graduates will have a successful technical or professional career, including supportive and leadership roles on multidisciplinary teams.

PEO-2: Graduates will be able to acquire, use and develop skills as required for effective professional practices.

PEO-3: Graduates will be able to attain holistic education that is an essential prerequisite for being a responsible member of society.

PEO-4: Graduates will be engaged in life-long learning, to remain abreast in their profession and be leaders in our technologically vibrant society.

2. Programme Outcomes (POs):

PO-1: Ability to apply knowledge of mathematics, science, and engineering.

PO-2: Ability to identify, formulate, analyze engineering problems using engineering sciences.

PO-3: Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety..

PO-4: Ability to design and conduct experiments, as well as to analyze and interpret data with valid conclusions.

PO-5: Ability to utilize experimental, statistical and computational methods and tools necessary for modelling engineering activities.

PO-6: Ability to apply reasoning informed by the relative knowledge to evaluate societal, health, safety, legal and cultural issues and tasks applicable to the professional engineering practice.

PO-7: Ability to adapt broad education necessary to understand the impact of engineering solutions and obtain sustainability in a global, economic, environmental, and societal context.

PO-8: Ability to discover ethical principles and bind to professional and ethical responsibility.

PO-9: Ability to function as an individual and in multi-disciplinary teams.

PO-10: Ability to communicate effectively on complex activities in engineering community and society.

PO-11: Ability to develop Project management principles and apply in various disciplinary environments.

PO-12: Recognition of the need for, and an ability to engage in life-long learning

3. Program Specific Outcomes(PSOs):

PSO-1: Graduates will interpret data and able to analyze digital and analog systems related to electrical and programming them.

PSO-2: Graduates will able to demonstrate, design and model electrical, electronic circuits, power electronics, power systems and electrical machines.



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GRIET/DAA/1H/G/22-23

19 July 2022

Academic Calendar
Academic Year 2022-23

III B.Tech. – First Semester

S. No.	EVENT	PERIOD	DURATION
1	Commencement of First Semester class work	08-08-2022	
2	I Spell of Instructions	08-08-2022 to 08-10-2022	9 Weeks
3	I Mid-term Examinations	10-10-2022 to 13-10-2022	3 Days
4	II Spell of Instructions	14-10-2022 to 12-12-2022	9 Weeks
5	II Mid-term Examinations	13-12-2022 to 15-12-2022	3 Days
6	Preparation	16-12-2022 to 22-12-2022	1 Week
7	End Semester Examinations (Theory/ Practical) Regular/ Supplementary	23-12-2022 to 13-01-2023	3 Weeks
8	Commencement of Second Semester, AY 2022-23	16-01-2023	

III B.Tech. – Second Semester

S. No.	EVENT	PERIOD	DURATION
1	Commencement of Second Semester class work	16-01-2023	
2	I Spell of Instructions	16-01-2023 to 16-03-2023	9 Weeks
3	I Mid-term Examinations	17-03-2023 to 20-03-2023	3 Days
4	II Spell of Instructions	21-03-2023 to 29-04-2023	6 Weeks
5	Summer Vacation	01-05-2023 to 20-05-2023	3 Weeks
6	II Spell of Instructions Contd	22-05-2023 to 12-06-2023	3 Weeks
7	II Mid-term Examinations	13-06-2023 to 15-06-2023	3 Days
8	Preparation	16-06-2023 to 22-06-2023	1 Week
9	End Semester Examinations (Theory/ Practical) Regular / Supplementary	23-06-2023 to 15-07-2023	3 Weeks
10	Commencement of IV B.Tech First Semester, AY 2023-24	17-07-2023	

J. Praveen



[Signature]

Dean Academic Affairs

Copy to Principal, All HoDs, CoE



Gokaraju Rangaraju Institute of Engineering and Technology

Department of Electrical and Electronics Engineering

GRIET/PRIN/06/G/01/22-23

BTech - EEE - A

Wef : 16th Jan 2023

III Year - II Semester

DAY/ HOUR	9:00 - 9:55	9:55- 10:50	10:50 - 11:45	11:45 -12:25	12:25-1:15	1:15 - 2:05	2:05 -2:55	ROOM NO	
MONDAY	EAE	SMI		BREAK	Mentoring	IoT		Theory/Tutorial	4402
TUESDAY	SMI		PLC		SMI Lab (A1)/ PSA Lab (A2)			Lab	PSA Lab (4504) SMI Lab (4507) MP Lab (4402)
WEDNESDAY	MPE/HVDCT		SMI		SMI Lab (A2)/ PSA Lab (A1)				
THURSDAY	MPE/HVDCT	PLC			Mentoring	EAE		Class Incharge:	G. Sandhya Rani
FRIDAY	MP Lab				IoT	MPE/HVDCT			
SATURDAY	PLC		Library		MP Lab/Mentoring/Student Technical Activities				
Subject Code	Subject Name			Faculty Code	Faculty Name		Almanac		
G20A3081	Programmable Logic Controllers (PLC)			PK	P. Prasanth Kumar		1 st Spell of Instructions		16-01-2023 to 16-03-2023
G20A3092	Sensors Measurements and Instrumentation (SMI)			Dr. PSVD	Dr. P. Srividya Devi		1 st Mid-term Examinations		17-03-2023 to 20-03-2023
G20A2004	Economics and Accounting for Engineers (EAE)			KKSK	K. K. Sunil Kumar		2 nd Spell of Instructions		21-03-2023 to 29-04-2023
G20A3093	Modern Power Electronics (MPE)			Dr. PB	Dr. B. Pakkiraiah		Summer Vacation		01-05-2023 to 20-05-2023
G20A3094	HVDC Transmission Systems (HVDCTS)			Dr.JS	Dr. J. Sridevi		2 nd Spell of Instructions Contd.		22-05-2023 to 12-06-2023
G20A	Internet of Things (Open Elective - II)			DSR	D. Srinivasa Rao		2 nd Mid-term Examinations		13-06-2023 to 15-06-2023
G20A3096	Power Systems Analysis Lab (PSA Lab)			GSR/MNSR	G. Sandhya Rani/ M. N. Sandhya Rani		Preparation		16-06-2023 to 22-06-2023
G20A3097	Sensors Measurements and Instrumentation Lab (SMI Lab)			Dr PSVD/ Dr. DGP/ UVL	Dr. P. Srividya Devi/ Dr. D. G. Padhan/ U. Vijaya Laxmi		End Semester Examinations (Theory/ Practicals) Regular / Supplementary		23-06-2023 to 15-07-2023
G20A3141	Mini Project With Seminar (MP Lab)			Dr. PBB/DSR	Dr. B. Phaneendra Babu/ D. Srinivasa Rao		Commencement of IV B. Tech I Sem A.Y 2023-24		17/07/2023

Time Table Coordinator

HOD

DAA

GRIET/PRIN/06/G/01/22-23

BTech - EEE - A

III YEAR -II SEMSTER

DAY/ HOUR	9:00 - 9:55	9:55- 10:50	10:50 - 11:45	11:45 -12:25	12:25-1:15	1:15 - 2:05	2:05 -2:55
MONDAY				BREAK			
TUESDAY					SMI LAB(A1)		
WEDNESDAY					SMI LAB(A2)		
THURSDAY							
FRIDAY							
SATURDAY							



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COs	Cognitive Learning Levels					
	1	2	3	4	5	6
1			√			
2		√				
3				√		
4						√
5					√	

Cognitive Learning Levels

CLL 1: Remembering

CLL 2: Understanding

CLL 3: Applying

CLL 4: Analyzing

CLL 5: Evaluating

CLL 6: Creating



Gokaraju Rangaraju Institute of Engineering and Technology

Department of Electrical and Electronics Engineering

2022 -23 II sem Subject Allocation Sheet

II YEAR(GR20)		Section-A	
Probability and Statistics		Mr. S Bhagat Kumar	
AC Machines		Dr Phaneendra Babu B / G Sandhya Rani	
Control Systems		V Usha Rani	
Principles of Digital Electronics		Dr T Suresh Kumar	
Power Distribution and Protection		Dr V Vijaya Rama Raju	
Environmental Science		Dr K Kalpana	
Data Base for Engineers			
Principles of Digital Electronics Lab		R Anil Kumar/ MNSandhya Rani	
AC Machines Lab		Dr V Vijaya Rama Raju / M Rekha	
Control Systems Lab		D Karuna Kumar /V Usha Rani	
III YEAR (GR20)		Section-A	
Programmable Logic Controllers		P Prashanth Kumar	
Sensors Measurements and Instrumentation		Dr P Srividya Devi	
Economics and Accounting for Engineers		K Sunil Kumar	
Modern Power Electronics (EEE) (PE-II)		Dr Pakkiraiah	
HVDC Transmission Systems (EEE) (PE-II)		Dr J Sridevi	
NPTEL (OE-II)		D Srinivasa Rao	
Power System Analysis Lab		GSR/MNSR	
Sensors Measurements and Instrumentation Lab		Dr P Srividya Devi/ Dr DG Padhan /U Vijaya Lakshmi	
Mini Project with Seminar		Dr Phaneendra Babu B / D Srinivasa Rao	
IV YEAR (GR18)		Section-A	Section-B
Programmable Logic Controllers		Dr Pakkiraiah B	Dr Pakkiraiah B
Power Quality and FACTS (PE-V)		DKK	DKK
Electric Smart Grid (PE-VI)		Dr J Sridevi	Dr J Sridevi
Open Elective III		Complete	
Project work (Phase- II)		AVK/MNSR/GSR	AVK/MNSR/GSR
M.Tech (POWER ELECTRONICS) I-II SEM			
Electric Drives System		Dr A Vinay Kumar	
Modern and Digital Control of Power Electronic and Drive Systems		Dr.D G Padhan	
Advanced Power Electronic Converters (PE-III)		Dr T Suresh Kumar	
AI and Machine Learning Techniques for Power Electronic Applications (PE-IV)		Dr B Phaneendra Babu	
Electrical Drives Lab		Syed Sarfaraz Nawaz	
DSP and Microcontroller Lab		Dr A Vinay Kumar	
Mini Project		G Sandhya Rani	

(Audit Course II) Indian Constitution	Syed Sarfaraz Nawaz	
M.Tech (POWER ELECTRONICS) II-II SEM		
Disseration Phase -II	Dr T Suresh Kumar	
2022-23 I Year II sem BEE		
Staff Name	Theory	Labs
K Sudha	2	1
P Praveen Kumar	2	1
Dr D S N M Rao	2	1
P Prashanth Kumar	_____	2
P Ravikanth	1	2
R Anil Kumar	1	_____
M Rekha	_____	3
U Vijaya Lakshmi	_____	4
M Prashanth	_____	3
Dr D G Padhan	1	_____
V Usha Rani	_____	1
CIVIL B.Tech II Year BEEE		
BEEE (CIVIL)	M Prashanth	

Dr Phaneendra Babu B
HOD,EEE



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List of Experiments

- Task-1:** Voltage and Current Detection Circuitry
- Task-2:** Temperature and Pressure and Humidity Detection Circuitry
- Task-3:** Measure one-cycle data of a periodic waveform from a DSO and use values to compute the RMS value
- Task-4:** Position by LVDT/ Pot
- Task-5:** Distance(Ultrasonic) sensor
- Task-6:** Light sensor
- Task-7:** Rainfall sensor& Soil moisture sensor
- Task-8:** Measurement of Power and Energy
- Task-9:** Accelerometer sensor
- Task-10:** Measurement of Resistance by bridges
- Task-11:** Measurement of Inductance by bridges
- Task-12:** Measurement of Capacitance by bridges

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GR20A3097-SENSORS MEASUREMENTS AND INSTRUMENTATION LAB														
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02
1. Measure common physical and electrical quantities using common sensors available	H	H	H	M	H	M	M			M	M	H	H	H
2. Construct basic programs for computer-controlled data acquisition, measurement and transfer of data across the sensor network for different types of sensors.	H	H	M	H	H			M	M	M	M	H	H	H
3. Establish competence in laboratory reporting in addition to the proper instrumentation of test systems and appropriate capture and interpretation of experimental test data.	H	H	H	H	H		M		M	M	M	H	H	H
4. Apply the statistics and uncertainty analysis and analyze the dynamic response using measuring instruments like DSO and Function Generator and record measuring data	H	H	M	H	H					M	M	M	H	H
5. Define various types of bridges in measurements, analyze and process the obtained measures	H	H	H	H	H	M	M		M	M	M	M	H	H



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COURSE OBJECTIVES

Academic Year : 2022-2023

Semester : II

Name of the Program: B.Tech EEE.

Year: III **Section:** A

Course/Subject: Sensors Measurements & Instrumentation Lab

Course code: GR20A3097

Name of the Faculty P.Srividya Devi, U.Vijayalakshmi, D.Padhan, Dept.: EEE.

On completion of this Subject/Course the student shall be able:

S.No	Objectives
1	To introduce the concepts and phenomenon of various types of sensors and Instrumentation
2	To demonstrate the designing and conducting experiments on sensors, to analyze and interpret data using basic programs.
3	To demonstrate various types of bridges for measurement of resistance, inductance capacitance etc. and their hardware set ups.
4	To provide students with the scientific necessary skills to create an instrumentation line with various actuators
5	To gain knowledge about the measuring instruments, the methods of measurement and the use of different transducers

Signature of HOD

Signature of faculty

Date:

Date:



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COURSE OUTCOMES

Academic Year :2022-2023

Semester : II

Name of the Program: B.Tech EEE.

Year: III Section: A

Course/Subject: Sensors Measurements & Instrumentation Lab

Course code:GR20A3097

Name of the Faculty: : P.Srividya Devi, U.Vijayalakshmi, D.Padhan. Dept.: EEE.

The expected out comes of the Course/Subject are:

S.No	Outcomes
1	Measure common physical and electrical quantities using common sensors available
2	Construct basic programs for computer-controlled data acquisition, measurement and transfer of data across the sensor network for different types of sensors.
3	Establish competence in laboratory reporting in addition to the proper instrumentation of test systems and appropriate capture and interpretation of experimental test data.
4	Apply the statistics and uncertainty analysis and analyze the dynamic response using measuring instruments like DSO and Function Generator and record measuring data
5	Define various types of bridges in measurements, analyze and process the obtained measures

Signature of HOD

Signature of faculty

Date:

Date:



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COURSE SCHEDULE

Academic Year : 2022-2023

Semester : II

Name of the Program: B.Tech EEE.

Year: III Section: A

Course/Subject: Sensors Measurements & Instrumentation Lab

Course code: GR20A3097

Name of the Faculty P.Srividya Devi, U.Vijayalakshmi, D.Padhan **Dept.: EEE.**

THE SCHEDULE FOR THE WHOLE COURSE/ SUBJECT IS:

Sl.No	Date	Topics	No of periods
1	17/01/2023	INTRODUCTION	
2	24/01/2023	INTRODUCTION TO ARDUINO	
3	31/01/2023	VOLTAGE DETECTION CIRCUITRY	3
4	01/02/2023	CURRENT DETECTION CIRCUITRY	
5	07/02/2023	TEMPERATURE DETECTION CIRCUITRY	3
6	14/02/2023	PRESSURE DETECTION CIRCUITRY	
7	21/02/2023	MEASURE ONE-CYCLE DATA OF A PERIODIC WAVEFORM FROM A DSO AND USE VALUES TO COMPUTE THE RMS VALUE	3
8	28/02/2023	POSITION INDICATION (LVDT, POT)	3
9	1/03/2023	DISTANCE(ULTRASONIC) SENSOR	3
10	8/03/2023	LIGHT SENSOR	3
11	15/03/2023	RAINFALL SENSOR	3
12	21/03/2023	SOIL MOISTURE SENSOR	
13	28/03/2023	MEASUREMENT OF POWER	3

14	04/04/2023	MEASUREMENT OF ENERGY	
15	11/04/2023	ACCELEROMETER SENSOR	3
16	18/04/2023	MEASUREMENT OF RESISTANCE BY BRIDGES	3
17	25/04/2023	MEASUREMENT OF INDUCTANCE BY BRIDGES	3
18	25/04/2023	MEASUREMENT OF CAPACITANCE BY BRIDGES	3



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EVALUATIONSTRATEGY

Academic Year :2022-2023

Semester : II

Name of the Program: B.Tech EEE. **Year: III** **Section: A**

Course/Subject: Sensors Measurements &Instrumentation Lab **Course code:**GR20A3097

Name of the Faculty P.Srividya Devi, U.Vijayalakshmi, D.Padhan Dept.: EEE.

1. TARGET:

A) Percentageforpass:**100%**

2. COURSEPLAN&CONTENT DELIVERY

(Please write how you intend to cover the contents: i.e., coverage of Units/Lessons by lectures, design, exercises, solving numerical problems, demonstration of models, model preparation, experiments in the Lab or by assignments, etc.)

3. METHOD OF EVALUATION

3.1 ~~D~~aily Attendance

3.2 ~~L~~ab Record and Observation

3.3 ~~P~~rojects

3.4 V~~i~~vo Voce

3.5 ~~I~~nternal Examination

4. List out any new topic(s)or any innovation you would like to introduce in teaching the subjects in this Semester.



Gokaraju Rangaraju Institute of Engineering & Technology

III B.Tech II Sem (EEE) Result Analysis

Academic Year: 2022-23

Total No. of Students Registered: 64

Course	Total No. of Students appeared	Total No. of Students Passed	No. of Students Failed	Count of Students with Grade Point					
				GP (10)	GP (9)	GP (8)	GP (7)	GP (6)	GP (5)
EAE	64	58	06	00	11	13	7	10	07
PLC	64	60	04	09	16	14	09	06	06
SMI	64	51	13	00	07	12	17	08	07
MPE	40	63	01	02	15	05	08	06	03
HVDCT	24	61	03	00	02	07	08	02	02
PSA Lab	64	58	06	02	14	16	11	11	04
SMI Lab	64	59	05	08	05	20	13	11	02
MINI Proj.	64	58	06	08	24	13	08	04	01
Cloud Computing (MOOCs)	64	52	12	00	10	23	16	13	00
DV	01	01	00	00	00	00	00	01	00
DV Lab	01	01	00	00	00	01	00	00	00

Arrears Position – III year / I Semester

No. of students	All Pass	One Arrear	Two Arrears	Three Arrears	More than three arrears	Over all % of pass
64	46	07	04	01	06	72%

Performance overall Class Three Toppers

ROLL NO.	NAME	SGP A
21245A0201	JAKINAPALLI CHANDHANA	9.48
20241A0257	SUSANI NEHA	9.30
20241A0223 20241A0233	M GAYATHRI PISINI SATHVIKA	9.18

III B.Tech - I Sem (EEE)

SECTION	Courses	EAE	PLC	SMI	MPE	HVDC	PSA Lab	SMI Lab	MINI Proj.	C C	D V	D V Lab
	Course codes	GR20A2004	GR20A3091	GR20A3092	GR20A3093	GR20A3094	GR20A3096	GR20A3097	GR20A3141	GR20A6007	GR20A3065	GR20A3068
A	TOTAL	64	64	64	40	24	64	64	64	64	01	01
	PASS	58	60	51	39	21	58	59	58	52	01	01
	PASS(%)	90.62%	93.75%	79.68%	97.5%	87.5%	90.62%	92.18%	90.62%	81.25%	100	100
	FACULTY NAME	K Sunil Kumar	P Prashanth Kumar	Dr P Srividya devi	Dr Pakkiraiah	Dr J Sridevi	G Sandhya Rani/M N Sandhya Rani	Dr P Srividya Devi/ Dr DG Padhan/ U Vijaya Lakshmi	Dr Phaneendra Babu / D Srinivasa Rao	P Ravikanth	Dr V Srilakshmi	N Krishna Chaitanya
	FACULTY ID	176	1055	931	1593	516	888/882	931/1283/692	1563/1540	1178	923	1397

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY
FEEDBACK OF FACULTY CONDUCTING BTECH CLASS WORK
FACULTY WISE

EEE- B.Tech- III Year SEMESTER - II ACADEMIC YEAR: 2022-2023 FEEDBACK NO:3 DATE: 17-06-2023

S.NO	SECTION	SUBJECTS	FACULTY ID	FACULTY NAME	DEPT	FEEDBACK PERCENTAGE	FEEDBACK I	RELATIVE FEEDBACK (AVG OF ALL)
1	A	Programmable Logic Controllers (PLC)	1055	P. Prasanth Kumar	EEE	78	3.12	3.1907692
2		Sensors Measurements and Instrumentation (SMI)	931	Dr. P. Srividya Devi	EEE	82	3.28	
3		Economics and Accounting for Engineers (EAE)	1604	K. K. Soud Kumar	EEE	81	3.24	
4		Modern Power Electronics (MPE)	1593	B. Pakkaraiah	EEE	82	3.28	
5		HVDC Transmission Systems (HVDC TS)	516	Dr. J. Sridevi	EEE	75	3	
6		Internet of Things (Open Elective - II)	1540	D. Srinivasa Rao	EEE	80	3.2	
7		Power Systems Analysis Lab (PSA Lab)	885	G. Sandhya Rani	EEE	82	3.28	
8		Power Systems Analysis Lab (PSA Lab)	882	M. N. Sandhya Rani	EEE	81	3.24	
9		Sensors Measurements and Instrumentation Lab (SMI Lab)	931	Dr. P. Srividya Devi	EEE	78	3.12	
10		Sensors Measurements and Instrumentation Lab (SMI Lab)	1283	Dr. D. G. Padhan	EEE	78	3.12	
11		Sensors Measurements and Instrumentation Lab (SMI Lab)	692	U. Vijaya Laxmi	EEE	78	3.12	
12		Mini Project With Seminar (MP Lab)	1563	Dr. B. Phaneendra Babu	EEE	81	3.24	
13		Mini Project With Seminar (MP Lab)	1540	D. Srinivasa Rao	EEE	81	3.24	

HOD Signature

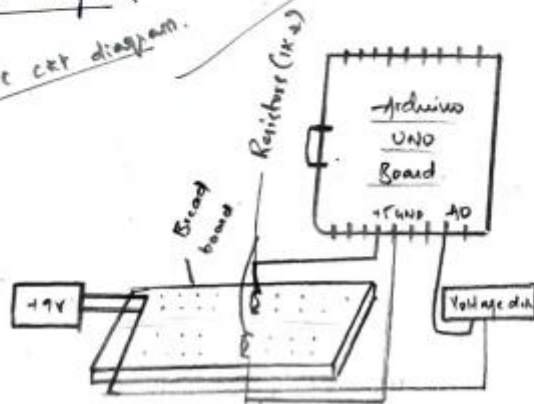
① Voltage Detection Circuitry.

Aim: To detect voltage across the battery using the Arduino.

Apparatus: Arduino board, Arduino Software, 2 Resistors 1K Ω , Connecting wires, bread board.

Circuit Diagram:

Build ckt diagram.



Theory:

An Arduino board can get a maximum input of 5V. By using Arduino board we can detect the voltage across the battery. In the Arduino Software we can write the program and can connect it to the interface Arduino board to laptop which is connected to circuit on bread board.

Procedure:

1. Open a new file in the Arduino Software.
2. Enter the code and save the file.
3. Now connect the circuit on bread board and connect it to Arduino board with respective pins.
4. Interface Arduino board to laptop.
5. Now compile and run the file.
6. Check the output in Serial monitor.

Program:

```
void setup()
{
  Serial.begin(9600);
}
void loop()
{
  int sensorValue = analogRead(A0);
```

```

float Voltage = sensorValue * (5.0/1023.0);
Serial.println(Voltage);
Serial.println(Voltage);
delay(1000);
}

```

Output:

Sample output:

Voltage : 0.05V

Voltage : 0.09V

⋮

→ Result: Hence, Successfully detected Voltage
by using Arduino Software