



G.NARAYANAMMA INSTITUTE OF TECHNOLOGY & SCIENCE (For Women)
(AUTONOMOUS)
Shaikpet, Hyderabad – 500104

DEPARTMENT of ELECTRONICS and TELEMATICS ENGINEERING

Dt: 4/12/2021

Schedule with Course contents and outcomes of Value added course on Data science and design with tinkercad

Module1: Tinkercad

- Day1. Inaugural, Introduction to Tinkercad: Creating an account in Tinkercad, Introduction to the environment of tinkercad, Working With LED
- Day2. Introduction to Arduino board. Introduction to coding using blocks of Tinkercad, Interfacing LED with Arduino:blinking, fading
- Day3. Voltage divider circuit, Interfacing Potentiometer with Arduino.LDR working, Interfacing LDR with arduino
- Day4. **Ultrasonic Sensor**: finding the distance of an object, obstacle detection and alerting, automatic Door opening
- Day5. Introduction to PWM, Interfacing DC motor with Arduino
- Day6. **Temperature Sensor**: Automatic room temperature control(blow buzzer when temperature crosses threshold /Switch on Fan)
- Day7. **PIR**:Burglar alarm, Automatic Street Light (PIR, LDR, LED)
- Day8. Automatic Gas leakage alert system, Working with Relay
- Day9. Assessment/Quiz

Module-2: Python for Data Science/Data analytics

Prerequisite:

- 1. Programming experience is not essential**
- 2. Devote 1-2 hours Productive hours**
- 3. Be Energetic While Learning**
- 4. Keep your mind Free while learning**



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5. Regular Practice is compulsory(Continuous learning is required)

6. Laptop/desktop with internet connection.

Contents

Day1. Introduction to Jupyter notebook, Arithmetic operations, control and conditional structures

Day2. For loop, while loop, user input

Day3. Strings, integers, floating values and type casting

Day4. Python strings and inbuilt functions

Day5. Python Lists and Boolean Variables Inbuilt functions

Day6. Python sets

Day7. Python dictionaries

Day8. Python tuples

Day9. Functions

Day10. Iterators and generators

Day11. Exception handling and Imports libraries

Day12. OOPS:Class,Object,Method,

Day13. Inheritance,Polymorphism,

Day14. Data Abstraction,Encapsulation

Day15. Python libraries:Numpy

Day16. Python libraries:Pandas

Day17. Python libraries:Matplotlib

Day18. Python libraries:Seaborn

Day19. Python libraries:Scipy

Day20. End to End Project related to DataScience/Data analytics

Day21. Assessment/Quiz



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Course outcomes of Value added course on Data Science and design with tinkercad:

1. Gain knowledge on the basic principles of python programming language.
2. Understand different decision making statements and functions
3. Apply the knowledge of data structures like Lists, Dictionaries and sets.
4. Understand and summarize different Files and exception handling operations.
5. Implement object oriented concepts.
6. Use various data structures and packages for data visualization and summarization.
7. Demonstrate practical knowledge of how physical quantities are converted to and from electrical signals in sensors and actuators.
8. Design real-time applications using micro-controller boards & sensors


Coordinator

N.Rama Krishna

Assistant professor

ETE



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II/IV ETE Student Attendance list for the Value Added Course on

Data Science and Design with TINKERCAD

Date	4/12/21	18/12/21	7/1/22	22/1/22	29/1/22	5/2/22	19/2/22	26/2/22	5/3/22
No. of Classes	3	3	3	3	2	2	2	2	2
Roll No									
20251A1701	A. Sathvika	A. Sathvika	A. Sathvika		A. Sathvika	A. Sathvika	A. Sathvika	A. Sathvika	A. Sathvika
20251A1702	Naimala	Naimala	Naimala	Naimala	Naimala	Naimala	Naimala	Naimala	Naimala
20251A1703	Lalithya	Lalithya	Lalithya	Lalithya	Lalithya	Lalithya	Lalithya	Lalithya	Lalithya
20251A1704	A	A	A	A	A	A	A	A	A
20251A1705	B. Sahithi	B. Sahithi	B. Sahithi	B. Sahithi	B. Sahithi		B. Sahithi	B. Sahithi	B. Sahithi
20251A1706	D. Ramyasi	D. Ramyasi		D. Ramyasi	D. Ramyasi	D. Ramyasi	D. Ramyasi	D. Ramyasi	D. Ramyasi
20251A1707	K	K	K	K	K	K	K	K	K
20251A1708	Chaitanya	Chaitanya	Chaitanya		Chaitanya	Chaitanya	Chaitanya	Chaitanya	Chaitanya
20251A1709	M. P. Vitha	M. P. Vitha	M. P. Vitha	M. P. Vitha	M. P. Vitha	M. P. Vitha	M. P. Vitha	M. P. Vitha	M. P. Vitha
20251A1710	has	has	has	has	has		has		has
20251A1711	Mandideepa		Mandideepa						Mandideepa
20251A1712	@chika	@chika	@chika	@chika	@chika	@chika		@chika	@chika
20251A1713	Harika	Harika	Harika	Harika		Harika	Harika	Harika	Harika
20251A1714	Srigama				Srigama				
20251A1715	P. Jothika			P. Jothika					P. Jothika
20251A1716	SR	SR	SR	SR	SR	SR		SR	SR

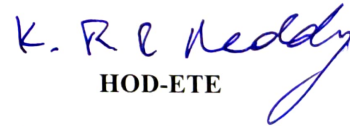
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20251A1754	Apz						Apz		
20251A1755	Vyshnaj	Vyshnaj	Vyshnaj	Vyshnaj	Vyshnaj	Vyshnaj	Vyshnaj	Vyshnaj	Vyshnaj
20251A1756									
20251A1757	harsheli	harsheli	harsheli		harsheli	harsheli	harsheli	harsheli	
21255A1702	low meya								
21255A1703	Nabi urissa								
21255A1704	N. Harweda								
21255A1705	V. Karsha								
21255A1706	Shaaneyan.								
21255A1707	Suchithrs								Suchithrs


Coordinator 1

Mr. N. Rama Krishna


Coordinator 2

Mr. V. Vikas


HOD-ETE

Dr. K. Rama Linga Reddy

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Date	19/3/22	26/3/22	2/4/22	16/4/22	23/4/22	30/4/22	7/5/22	21/5/22	4/6/22
No. of Classes	2	2	2	2	2	2	2	2	2
Roll No									
20251A1701	A. Sathvika	A. Sathvika	A. Sathvika	A. Sathvika		A. Sathvika	A. Sathvika	A. Sathvika	A. Sathvika
20251A1702	Nimata	Nimata	Nimata	Nimata	Nimata	Nimata	Nimata	Nimata	Nimata
20251A1703	Kalshya	Kalshya		Kalshya	Kalshya	Kalshya	Kalshya	Kalshya	Kalshya
20251A1704	A	A	A	A	A	A	A	A	A
20251A1705	B. Sahithi	B. Sahithi	B. Sahithi	B. Sahithi		B. Sahithi	B. Sahithi	B. Sahithi	B. Sahithi
20251A1706	D. Ramani	D. Ramani	D. Ramani	D. Ramani	D. Ramani		D. Ramani	D. Ramani	D. Ramani
20251A1707	(K)	(K)	(K)	(K)	(K)		(K)	(K)	(K)
20251A1708	Chyda	Chyda	Chyda	Chyda	Chyda		Chyda	Chyda	Chyda
20251A1709	M. P.	M. P.	M. P.	M. P.	M. P.	M. P.	M. P.	M. P.	M. P.
20251A1710	har	har	har		har	har	har	har	har
20251A1711									
20251A1712	Harika	Harika	Harika	Harika	Harika	Harika		Harika	Harika
20251A1713	Harika	Harika		Harika	Harika	Harika	Harika	Harika	Harika
20251A1714									
20251A1715									
20251A1716	SR	SR		SR	SR	SR	SR	SR	SR

20251A1752	shreya	shreya	shreya		shreya		shreya	shreya	shreya
20251A1753	Vathsalpa	Vathsalpa	Vathsalpa	Vathsalpa		Vathsalpa		Vathsalpa	Vathsalpa
20251A1754									
20251A1755	Vyshraj	Vyshraj	Vyshraj	Vyshraj	Vyshraj	Vyshraj	Vyshraj	Vyshraj	Vyshraj
20251A1756									
20251A1757	harshali	harshali	harshali		harshali	harshali	harshali	harshali	
21255A1702	Sowmya								
21255A1703								Sowmya	
21255A1704									
21255A1705									
21255A1706									
21255A1707	Suchithra								Suchithra


Coordinator 1

Mr. N. Rama Krishna



Coordinator 2

Mr. V. Vikas


HOD-ETE

Dr. K. Rama Linga Reddy

G. Narayanamma Institute of Technology Science (for Women)
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Department of ETE

Report on Value Added Course

Event Name : Data Science and Design with TINKERCAD

Date(s) : 04/12/2021 to 24/06/2022

Coordinator(s) : Mr. N. Rama Krishna, Mr. V. Vikas

Resource Persons : Mr. N. Rama Krishna, Mr. V. Vikas

Budget/Expenditure : Nil

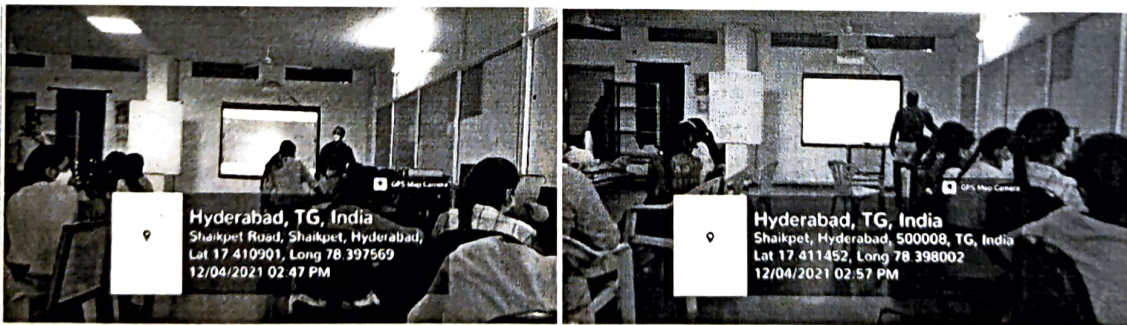
No. of Participants : 61


Brief Description :

Topics covered in VAC:

Module1:Tinkercad: Introduction to Tinkercad, Arduino board, Voltage divider circuit, Interfacing Potentiometer with Arduino, LDR working, Interfacing LDR with arduino, Ultrasonic Sensor, Introduction to PWM, Interfacing DC motor with Arduino, Temperature Sensor, PIR, Automatic Gas leakage alert system, Working with Relay

Module-2: Python for Data Science/Data analytics: Introduction to Jupyter notebook, Python Concepts, Python strings and inbuilt functions, sets, dictionaries, tuples, functions, libraries, OOPS, End to End Project.

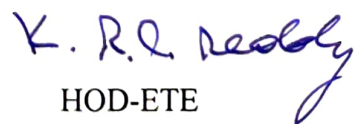



Coordinator1

Mr. N. Rama Krishna


Coordinator2

Mr. V. Vikas


HOD-ETE

Dr. K. Rama Linga Reddy