Let's Tinker

SREE NARAYANA COLLEGE KOLLAM

CERTIFICATE COURSE ON TINKERCAD

CONDUCTED BY DEPARTMENT OF PHYSICS

Tinkercad Circuits is a popular digital and analog electronics simulator for hobbyists, students, and makers. Tinkercad Circuits offers an intuitive interface that lets users drag and drop components into their virtual electronic design. Besides creating Arduino-based designs, it's also possible to simulate other analog and digital circuits that don't use a microcontroller (MCU) or development board.
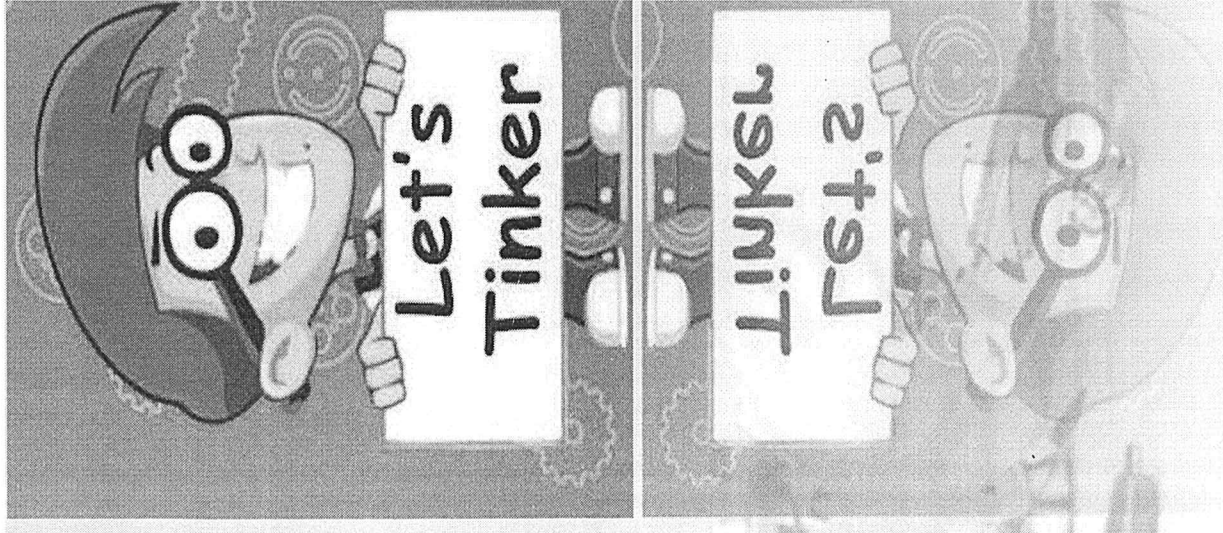
Starts on 10/10/2019

Ends on 10/12/2019

Available Seats: 25

Admission starts on 02/10/2019.

For more Information, contact ASITHA L.R (Coordinator)

Ph. No: 9995213881

DEPARTMENT OF PHYSICS

CERTICATE COURSE- TINKERCAD

SYLLABUS- 30 Hrs

Module 1: Learning Basic Circuits (5 Hrs)
Focus on fundamentals, such as breadboard wiring, Ohm's law, and series and parallel circuits.

Module 2: Exploring Circuits (7 Hrs)
Introduce electronics (LEDs, batteries, hobby motors, resistors, and switches), Basic circuit connections: Controlling LEDs and DC motors, Understand the switches, pushbuttons, and battery connections.

Module 3: Arduino in Tinkercad (7 Hrs)
Introduction to Arduino and Robotics, Control multiple motors with Arduino using scratch programming, Connect the IR sensor and photo-resistor to make an obstacle avoider robot, Use the Ultrasonic sensor to make a robot and home security system, Use servo motors to make robotics Arms.

Module 4: Teaching Circuits with Tinkercad (6 Hrs)
Simple project discussion using the integration of multiple sensors.

Module 5: PROJECTS (5 Hrs)

1.Arduino--Getting-started-with-Tinkercad-Simulation: how to build circuits, code
2.TinkerCad-Traffic-Light-Simulation: create own traffic light system.
3.Using Loops in programming the Arduino using Tinkercad: learn how to use for Loops
4.TinkerCad-Knight-Rider-Simulation: create iconic strobe effect with sound
5.TinkerCad-Parking-Sensor-Simulation with flashing LEDs and sounds and distance sensor
6.Tinkercad Night Light Simulation with LDR and push switch.
7. Tinkercad Electronic Dice with Push button
8. Tinkercad Creating and displaying characters using an LCD

SREE NARAYANA COLLEGE, KOLLAM

DEPARTMENT OF PHYSICS

Minutes of the Meeting

The minutes of the meeting of the BoS of Certificate courses was held on 28th August, 2019 in the Department of Physics, Sree Narayana College, Kollam at 10.00 a.m. The following members were present for the meeting.

1	Dr. Sajeev Kumar G	9	Smt. Rehna R
2	Dr. Sankar S	10	Smt. Saranya Babu
3	Smt. Asitha L R	11	Sri. Vipin Kumar C
4	Sri. Srijith S	12	Smt. Aparna L.R
5	Sri. Baiju V	13.	Dr. Muhammed Salim
6	Dr. Roxy M S	14	Dr.P. K. Manoj
7	Dr. Dedhila Devadathan	15.	Sri. Saffir T K
8	Dr. Vidya S		

The following points were discussed in the meeting.

- The BoS has decided to initiate the following courses in the academic year 2019-20.

1. TINKERCAD (TC)

- The syllabus for the above courses was designed by the committee by considering the global needs and demand of the market.
- It was decided to conduct the above courses for more than 30 hours.
- The committee has framed the time- table apart from the academic hours.
- While running the course there are some expenditures such remuneration for the trainers, stationery and miscellaneous. Therefore, the minimum affordable fees should be charged.
- The committee has suggested to appoint the trainers for the above courses.
- The board has decided to initiate the certificate courses as per the demand of the stakeholders and approval of I.Q.A.C.

Sri. Srijith S proposed vote of thanks and the meeting was ended.

Dept: of Physics
Sree Narayana College
Kollam 691 001

Principal
Sree Narayana College
Kollam

SREE NARAYANA COLLEGE, KOLLAM
DEPARTMENT OF PHYSICS

The following faculties are selected as trainers for Certificate courses TINKERCAD (TC) Conducted by Department of Physics, Sree Narayana College, Kollam in the academic year 2020-21.

	List of Teachers - TINKERCAD			
	Name	College	Mobile no:	mail id
1	Dr.Dedhila Devadathan	SNCK	9446454083	dedhila@gmail.com
2	Sri. Srijith S	SNCK	9633500425	srijithkeanu@gmail.com
3	Smt.Asitha L.R	SNCK	9995213881	asitha85@gmail.com
4	Sri. Baiju V	SNCK	8281856366	baijuvkollam@gmail.com
5	Smt Rehna R	SNCK	8281328303	rehnaraju@gmail.com
6	Dr Roxy M S	SNCK	9495243029	roxyms@gmail.com

SREE NARAYANA COLLEGE, KOLLAM

DEPARTMENT OF PHYSICS

CERTIFICATE COURSE TIME TABLE

Name: TINKERCAD (TC)

Duration: 30 Hrs

Start Date: SEPT 10 2019   **End Date: DEC 10 2019**

DAY /08:15 AM TO 09:15 AM	HANDLED BY
MONDAY	DEDHILA DEVADATHAN
TUESDAY	SRIJITH S
WEDNESDAY	ASITHA L R
THURSDAY	PRACTICAL HOURS (Dr. ROXY M S/ BAIJU V)
FRIDAY	REHNA R

SREE NARAYANA COLLEGE ,KOLLAM
DEPARTMENT OF PHYSICS

CERTIFICATE COURSE

Name : **TINKERCAD (TC)**
Duration : 30 Hrs
Start Date: Sept 10 2019   End Date: DEC 10 2019

LIST OF STUDENTS

Sl. No.	Name of the student	Gender	Email ID	Class	Mobile No:	Year of Admission
1	AISWARYA RAJ	F	aiswaryaraj906@gmail.com	M.Sc. PHYSICS	9633077906	2019
2	VAISHNAVI G	F	vaishgvaishnavi@gmail.com	M.Sc. PHYSICS	7561087381	2019
3	VAISAKH K S	M	ksvaisakh60@gmail.com	M.Sc. PHYSICS	7558805713	2019
4	SYAMJITH M	M	syamk491@gmail.com	M.Sc. PHYSICS	9526508036	2019
5	SIVAKUMAR V S	M	vssivakumar98@gmail.com	M.Sc. PHYSICS	7510876460	2019
6	SANIYA S.M	F	sanayazindagi@gmail.com	M.Sc. PHYSICS	8129117275	2019
7	REVATHY G.S	F	revathygs081998@gmail.com	M.Sc. PHYSICS	8075179186	2019
8	RAHUL S R	M	rahulchithira30@gmail.com	M.Sc. PHYSICS	8547095266	2019
9	PRESITHA PRENRAJ	F	presithaprenraj@gmail.com	M.Sc. PHYSICS	9567967119	2019
10	PREETHU P	F	ppreethu054@gmail.com	M.Sc. PHYSICS	9400211494	2019
11	NIKITA MARIA GEORGE	F	nikitamariageorge@gmail.com	M.Sc. PHYSICS	9995954947	2019
12	NIDHI JOTHI	F	nidhijothi@gmail.com	M.Sc. PHYSICS	9495420282	2019
13	NEENU NASSAR	F	neenunassar123@gmail.com	M.Sc. PHYSICS	9188590418	2019
14	KEERTHANA S LAL	F	keerthanaslal98@gmail.com	M.Sc. PHYSICS	9400181597	2019
15	GOPIKA B R	F	gopikavaishnavam98@gmail.com	M.Sc. PHYSICS	9747420076	2019
16	DRISYA SHAJIKUMAR	F	drisyarajesh418@gmail.com	M.Sc. PHYSICS	9995239452	2019
17	ATHIRA SURESH B	F	athirasureshb4@gmail.com	M.Sc. PHYSICS	9446042547	2019
18	ARUNDHATHI ANIL	F	arundhathyanil319@gmail.com	M.Sc. PHYSICS	8113895528	2019
19	ARUN A G	M	arunagnandanam@gmail.com	M.Sc. PHYSICS	7025452167	2019
20	ARCHANA C S	F	archanachithra97@gmail.com	M.Sc. PHYSICS	9895148991	2019
21	ANJANA RAJENDRAN	F	anjanarajendran426@gmail. com	M.Sc. PHYSICS		2019
22	ANAGHA M L	F	anaghamurukesh@gmail.com	M.Sc. PHYSICS	9447808813	2019

Dept. of Physics
Sree Narayana College
Kollam-691 001

SREE NARAYANA COLLEGE ,KOLLAM
DEPARTMENT OF PHYSICS
CERTIFICATE COURSE

Name : **TINKERCAD (TC)**

Duration : 30 Hrs

Start Da Sept 10 2019   End Date: DEC 10 2019

	ATTENDENCE STATEMENT		
Sl. No.	**Name of the student**	**Register No:**	**% of Attendence**
1	VAISHNAVI G	TC01	95
2	VAISAKH K S	TC02	90
3	SYAMJITH M	TC03	98
4	SIVAKUMAR V S	TC04	89
5	SANIYA S.M	TC05	98
6	REVATHY G.S	TC06	99
7	RAHUL S R	TC07	90
8	PRESITHA PRENRAJ	TC08	95
9	PREETHU P	TC09	90
10	NIKITA MARIA GEORGE	TC10	89
11	NIDHI JOTHI	TC11	94
12	NEENU NASSAR	TC12	90
13	KEERTHANA S LAL	TC13	80
14	GOPIKA B R	TC14	88
15	DRISYA SHAJIKUMAR	TC15	87
16	ATHIRA SURESH B	TC16	86
17	ARUNDHATHI ANIL	TC17	80
18	ARUN A G	TC18	89
19	ARCHANA C S	TC19	88
20	ANJANA RAJENDRAN	TC20	90
21	ANAGHA M L	TC21	87
22	AISWARYA RAJ	TC22	80

SREE NARAYANA COLLEGE ,KOLLAM
DEPARTMENT OF PHYSICS

CERTIFICATE COURSE

Name :

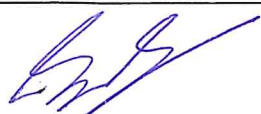### Microprocessor and Microcontroller (MM)

Duration : 30 Hrs

Start Date: Sept 05 2019   **End Date:**   **Jan 5 2020**

MARK LIST

Sl. No.	Name of the student	Marks Obtained			
		Theory (50)	Practical (40)	Assignment (10)	Total (100)
1	AISWARYA RAJ	35	35	10	80
2	VAISHNAVI G	43	33	10	86
3	VAISAKH K S	41	34	10	85
4	SYAMJITH M	39	34	10	83
5	SIVAKUMAR V S	42	35	10	87
6	SANIYA S.M	45	39	10	94
7	REVATHY G.S	33	35	10	78
8	RAHUL S R	38	33	10	81
9	PRESITHA PRENRAJ	33	33	10	76
10	PREETHU P	34	32	10	76
11	NIKITA MARIA GEORGE	44	35	10	89
12	NIDHI JOTHI	43	38	10	91
13	NEENU NASSAR	48	35	10	93
14	KEERTHANA S LAL	47	36	10	93
15	GOPIKA B R	46	34	10	90
16	DRISYA SHAJIKUMAR	32	38	10	80
17	ATHIRA SURESH B	44	35	10	89
18	ARUNDHATHI ANIL	45	36	10	91
19	ARUN A G	38	34	10	82
20	ARCHANA C S	37	35	10	82
21	ANJANA RAJENDRAN	35	36	10	81
22	ANAGHA M L	32	34	10	76

SREE NARAYANA COLLEGE KOLLAM
CERTIFICATE COURSE 2019-20

Department: PHYSICS
Name of Certificate course: TINKERCAD
No.of students enrolled: 22
No. of students passed: 22

Sl No.	Candidate Code	Name of Candidate	Department	Completed or not
1	63019132001	AISWARYA RAJ	PHYSICS	YES
2	63019132002	VAISHNAVI G	PHYSICS	YES
3	63019132003	VAISAKH K S	PHYSICS	YES
4	63019132004	SYAMJITH M	PHYSICS	YES
5	63019132005	SIVAKUMAR V S	PHYSICS	YES
6	63019132006	SANIYA S.M	PHYSICS	YES
7	63019132007	REVATHY G.S	PHYSICS	YES
8	63019132008	RAHUL S R	PHYSICS	YES
9	63019132009	PRESITHA PRENRAJ	PHYSICS	YES
10	63019132010	PREETHU P	PHYSICS	YES
11	63019132011	NIKITA MARIA GEORGE	PHYSICS	YES
12	63019132012	NIDHI JOTHI	PHYSICS	YES
13	63019132013	NEENU NASSAR	PHYSICS	YES
14	63019132014	KEERTHANA S LAL	PHYSICS	YES
15	63019132015	GOPIKA B R	PHYSICS	YES
16	63019132016	DRISYA SHAJIKUMAR	PHYSICS	YES
17	63019132017	ATHIRA SURESH B	PHYSICS	YES
18	63019132018	ARUNDHATHI ANIL	PHYSICS	YES
19	63019132019	ARUN A G	PHYSICS	YES
20	63019132020	ARCHANA C S	PHYSICS	YES
21	63019132021	ANJANA RAJENDRAN	PHYSICS	YES
22	63019132022	ANAGHA M L	PHYSICS	YES

Dept. of Physics
Sree Narayana College
Kollam-691 001

REPORT ON CERTIFICATE COURSE IN MICROPROCESSOR AND MICROCONTROLLER AND PYTHON PROGRAMMING

DEPARTMENT OF PHYSICS

ACADEMIC YEAR 2019-20

Tinkercad circuits is a fully functional Arduino+ Circuit simulator that runs in a web browser Tinkercad provides a "breadboard view" with graphics that look like the physical circuit parts you would use in real life, which is a much more beginner-friendly approach. The ability to simulate an Arduino and run code directly in the web browser is an added bonus. While simulations are never a complete replacement for real hardware, they're certainly better than nothing if students don't have any other options.

- The BoS has decided to initiate the following courses in the academic year 2019-20.

1. TINKERCAD (TC)

- The syllabus for the above courses was designed by the committee by considering the global needs and demand of the market.
- It was decided to conduct the above courses for more than 30 hours.
- The committee has framed the time- table apart from the academic hours.
- While running the course there are some expenditures such remuneration for the trainers, stationery and miscellaneous. Therefore, the minimum affordable fees should be charged.
- The committee has suggested to appoint the trainers for the above courses.
- The board has decided to initiate the certificate courses as per the demand of the stakeholders and approval of I.Q.A.C.

Duration: 05 hrs Project and 25 hrs theory

The students have completed 30 sessions including theory and practical during the period September 2019- December 2019.

Total Students Successfully Completed: 22

Dept. of Physics
Sree Narayana College
Kollam-691 001

Principal
Sree Narayana College
Kollam