



South Indian Education Society's
GRADUATE SCHOOL OF TECHNOLOGY, Navi
Mumbai.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Workshop on Raspberry pi

June 27 to July 15,
2022 [Click here to register](#)

There is difference between education and knowledge. Education provides learning. While knowledge translates that learning into a career that earns a living. But the truth is, our education system is largely structured around academic learning, leaving the task of turning it into a career to the individual. For the less-privileged though, the only barrier that stands between them and a technocrat is knowledge of practical aspects of technology.

This course is meant to be a hands-on type of course, giving students a chance to learn rpi and its programming.

About Instructors:

This course will be taught by a team of expert from Industry and SIESGST faculty members of the Electronics and Telecommunication Department.

Industry Expert:

Mr. Kartik Daware, Senior Engineer, FEV India Ltd. Pune

Faculty Members:

1. Prof. Vishal Gaikwad
2. Prof. Vaishali Mangrulkar
3. Prof. Nita Patil

Course Objectives:

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To develop the background knowledge and core expertise of an embedded system design.
To know the importance of different peripheral devices and their interfacing to rpi board.
To know the sensor interfacing and its programming.
To write python programs for rpi for various applications.
To know the working of different sensors and their use in an embedded systems
To understand the basic concept of OS and installation of OS

Course Outcomes:

Students will be able to

Install OS for rpi

- Interface different sensors and actuators with rpi
- Write programs for rpi using python.
- Understand the various python commands for rpi.

Course Content:

Module	Contents	Hours
1.	Introduction to basics of OS and different OS for rpi	6 hrs
2.	Installation of OS in rpi board	6 hrs
3.	Introduction of python commands for rpi.	6 hrs
4	Python programming for rpi	6 hrs
5	Interfacing of following sensors and programming for rpi 1. LDR Sensor 2. Ultrasonic Sensor 3. DHT11 Sensor 4. Motion Sensor 5. Gas Sensor	10 hrs
6	Interfacing of display devices and mini project designing based on rpi and sensors	09 hrs

Assessment:

1. Module wise assignments and quizzes should be completed by students.
2. 15 Days Internship will be provided subject to the successful completion of Mini Project.

Course Coordinators: Prof. Vishal Gaikwad

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Prof. Nita Patil

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Department of Electronics & Telecommunication Engineering
Event Report

Value-added course on RPi
(27/06/2022 to 02/07/2022)

Event Information

Event Type: Value added course with internship projects

Event title: Workshop on Raspberry Pi

Resource Person: Prof. Vishal Gaikwad, Prof. Vaishali Mangrulkar, Prof. Nita Patil
Expert talk by Mr. Kartik Daware, Senior Engineer, FEV India Ltd. Pune.

Event date: 27/06/2022 to 02/07/2022

Organized for: Student Faculty

Organized by Department : Electronics & Telecommunication Engineering

Target audience : SE/TE students

Branch: EXTC / ECS

Number of students registered: 22

Number of students joined on first day: 16

Number of students completed the course: 21

Number of students completed the internship projects: 21

Attachments: 1. List of internship Projects completed by the students
2. List of students
3. Attendance report
3. Feedback
4. Certificate, Photographs (in JPEG/PNG)

Event Description

SDP on Raspberry Pi was started with session by Prof. Vishal Gaikwad. During these six days of program students were introduced about Basics of RPi board , RPi OS installation, sensor interfacing , Python programming introduction , interfacing board wirelessly, Web server application and IoT. An expert session on “ Latest Trends & Opportunities in Embedded System “ was taken by Mr. Kartik Daware. After completion of program, students completed some projects using RPi and submitted the document.

1. List of internship Projects completed by the students :

Sr. No	Student Name	Roll Number	Class	Project Title
1	Sahil Kelaskar	120A2024	SE	Plant Monitoring system
2	Kinnari Desai	120A2013	SE	digital oscilloscope
3	Shruti M Wamorkar	120A2052	SE	digital oscilloscope
4	Nijesh Nair	120A2027	SE	GPIO-Game sound box
5	Prasad Arekar	120A2004	SE	GPIO-Game sound box
6	Vinitha rajavelu udaiy	120A2030	SE	soil moisture check using Rpi
7	Nibin Dommen Vargh	120A2028	SE	Wifi extender using Rpi
8	Ayush R	120A2007	SE	Wifi extender using Rpi
9	Anirudh Sharma	120A7005	SE ECS	Proximity alert system using Rpi
10	Prathamesh shahapu	120A2042	SE	Wifi extender using Rpi
11	Rajendra Undire	120A2046	SE	Temperature log using rpi
12	Nidhi Kulkarni	120A2029	SE	Network Attached Storage (NAS)
13	Ojas Vighne	120A7059	SE ECS	Proximity alert system using Rpi
14	ISHAANAA KARMAK	120A2023	SE	Electronic Voting machine using Rpi
15	Siddhi Kishor Jambek	120A2021	SE	Electronic Voting machine using Rpi
16	Rahul Bala Subraman	120A2008	SE	soil moisture check using rpi
17	Charudatta Bonde	120A2010	SE	Network Attached Storage (NAS)
18	Soumya Verma	120A2049	SE	Plant Monitoring system
19	ansh	120A2003	SE	Temperature log using rpi
20	Gaurav Patil	120A2035	SE	Music box using rpi
21	Rohan Salvi	120A2040	SE	Music box using rpi

2. List of Students :

Sr. No.	Student Name	Roll Number	Email Address
1	Vigneswaran Ganesh	120A2050	vigneswaranganeshextc120@siesgst.ac.in
2	Kinnari Desai	120A2013	kinnari.desaiextc120@siesgst.ac.in
3	Shruti M Wamorkar	120A2052	shrutiwamorkarextc120@siesgst.ac.in
4	NIJESH NAIR	120A2027	nijeshnnextc120@gst.sies.edu.in
5	Prasad Arekar	120A2004	prasadaextc120@gst.sies.edu.in
6	Vinitha rajavelu udaiyar	120A2030	vinithauextc120@gst.sies.edu.in
7	Nibin Dommen Varghese	120A2028	nibinvextc120@gst.sies.edu.in
8	Ayush R	120A2007	ayushrextc120@gst.sies.edu.in
9	Anirudh Sharma	120A7005	anirudhsecs120@gst.sies.edu.in
10	Prathamesh shahapure	120A2042	prathameshsextc120@gst.sies.edu.in
11	Rajendra Undire	120A2046	rajendraundire231@gmail.com
12	Nidhi Kulkarni	120A2029	nidhikulkarniextc120@siesgst.ac.in
13	Ojas Vighne	120A7059	vighneojas@gmail.com
14	ISHAANAA KARMAKAR	120A2023	ishaanakarmakarextc120@siesgst.ac.in
15	Siddhi Kishor Jambekar	120A2021	siddhijambekarextc120@siesgst.ac.in
16	Rahul Bala Subramanian	120A2008	balasextc120@gst.sies.edu.in
17	Charudatta Bonde	120A2010	Charudattabonde321@gmail.com
18	Soumya Verma	120A2049	soumyavermaextc120@siesgst.ac.in
19	Ansh Kasbe	120A2003	aaaanshkaaaasbe@gmail.com
20	Gaurav Patil	120A2035	gauravpextc120@gst.sies.edu.in
21	Rohan Salvi	120A2040	rohansextc120@gst.sies.edu.in

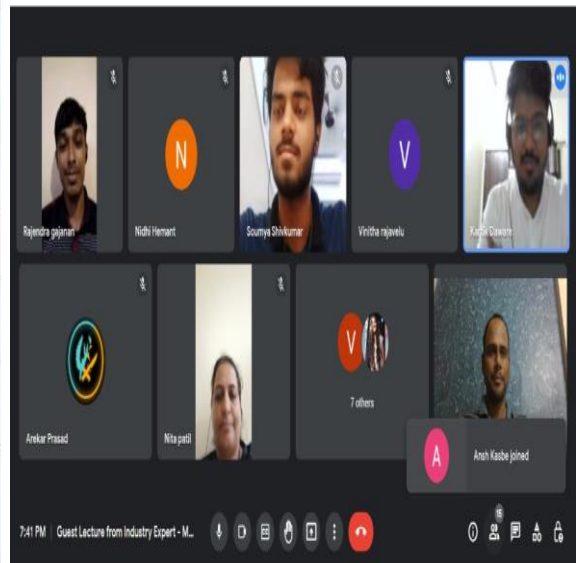
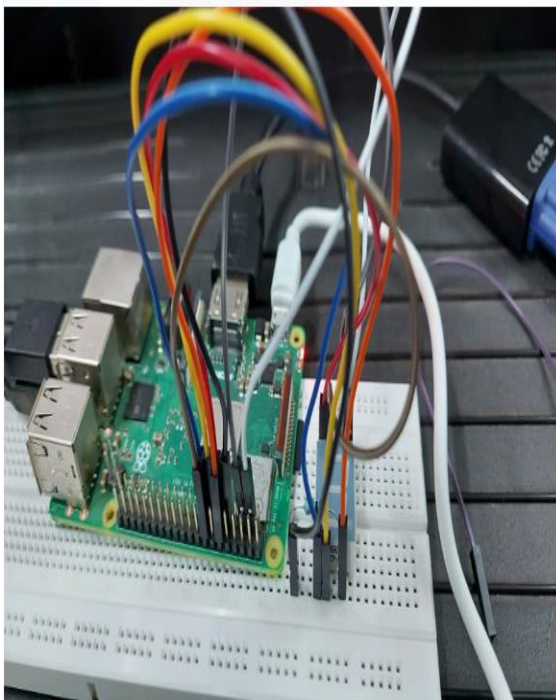
3. Attendance report :

Sr.No	Student Name	Roll Number	Class	27-Jun-22	28-Jun-22	29-Jun-22	30-Jun-22	01-Jul-22	02-Jul-22
1	Akshaya Reghu								
2	Sahil		SE	ab	Sahil	Sahil	Sahil	Sahil	P
3	Kinnari Desai	120A2013	TE	Kinnari	Kinnari	Kinnari	Kinnari	Kinnari	P
4	Shruti M Wamorkar	120A2052		Shruti	Shruti	Shruti	Shruti	Shruti	P
5	NIJESH NAIR	120A2027	TE	Nijesh	Nijesh	Nijesh	Nijesh	Nijesh	P
6	Prasad Arekar	120A2004		Prasad	Prasad	Prasad	Prasad	Prasad	P
7	Vinitha rajavelu udaiyar	120A2030		Vinitha	Vinitha	Vinitha	Vinitha	Vinitha	P
8	Nibin Oommen Varghese	120A2028	SE	Nibin	Nibin	Nibin	Nibin	Nibin	P
9	Ayush R	120A2007	SE	ab	Ayush	Ayush	Ayush		P
10	Anirudh Sharma	120A7005	SE ECS	Anirudh	Anirudh	Anirudh	Anirudh	Anirudh	P
11	Prathamesh shahapure	120A2042		Prathamesh	Prathamesh	Prathamesh	Prathamesh	Prathamesh	P
12	Rajendra Undire		SE	ab	Rajendra	Rajendra	Rajendra	Rajendra	P
13	Nidhi Kulkarni	120A2029		Nidhi	Nidhi	Nidhi	Nidhi	Nidhi	P
14	Ojas Vighne	120A7059		Ojas	Ojas	Ojas	Ojas	Ojas	P
15	ISHAANAA KARMAKAR	120A2023	TE	ISHAANAA	ISHAANAA	ISHAANAA	ISHAANAA		-
16	Siddhi Kishor Jambekar	120A2021	SE	ab	Siddhi	Siddhi	Siddhi	Siddhi	P
17	Rahul Bala Subramanian		SE	Rahul	AB	AB	Rahul		P
18	Charudatta Bonde	120A2010	TE	Charudatta	Charudatta	Charudatta	Charudatta	Charudatta	P
19	Soumya Verma	120A2049		Soumya	Soumya	Soumya	Soumya	Soumya	P
20	ansh	120A2003		Ansh	Ansh	Ansh	Ansh		P
21	Gaurav Patil	120A2035	SE		Gaurav	Gaurav	Gaurav	Gaurav	P
22	Rohan salvi	120A2040	SE		Rohan	Rohan	Rohan	Rohan	P

4. Feedback

Name	Bra	CO1: Develop the background knowledge and core	CO2: Know the importance of different peripheral devices and their	CO3: Know the sensor interfacing and its programming.	CO4: Write python programs for rpi for various applica	CO5: Know the working of different sensors and their use in ar	CO6: Under stand the basic concept of OS and installation of OS	Your suggestion about SDP contents	Would you like to attend this kind of SDP in future? If Yes, suggest topic.
1 Ojas Vighne	ECS	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Yes	Yes
2 Anirudh Sharma	ECS	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	.	Yes
3 Rohan Salvi	EXTC	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	-	-
4 Prasad Arekar	EXTC	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	NA	Yes. Arduino
5 Bala Subramanian	EXTC	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	.	.
6 Rajendra Undire	EXTC	Somewhat well	Extremely well	Extremely well	Somewhat well	Extremely well	Somewhat well	.	.
7 Gaurav Patil	EXTC	Somewhat well	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	.	yes
8 Kinnari Desai	EXTC	Extremely well	Somewhat well	Somewhat well	Somewhat well	Somewhat well	Somewhat well	-	Yes
9 Nibin Varghese	EXTC	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	It was very good. Very informative and interesting	Yes, deeper concepts of
10 Nijesh Nair	EXTC	Somewhat well	Extremely well	Somewhat well	Somewhat well	Extremely well	Extremely well	.	Yes
11 Prathamesh Shahapure	EXTC	Somewhat well	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Awesome.	Yes. Graphic
12 Nidhi Kulkarni	EXTC	Extremely well	Extremely well	Extremely well	Somewhat well	Extremely well	Extremely well	It was really helpful	Yes.
13 Ayush Rajeevan	EXTC	Neutral	Somewhat well	Extremely well	Somewhat well	Extremely well	Somewhat well	Nice	Raspberry Pi graphic designer
14 Soumya Verma	EXTC	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Pi Camera Module.	NodeMCU
15 Sahil Kelaskar	EXTC	Somewhat well	Extremely well	Extremely well	Extremely well	Somewhat well	Extremely well	IDT projects related to webserver, Bluetooth, pi	Yes, would like to learn about node mcu and other boards too
16 Siddhi Jambekar	EXTC	Extremely well	Extremely well	Extremely well	Somewhat well	Extremely well	Extremely well	Nice experience	Yes...
17 Shruti Wamorkar	EXTC	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	Extremely well	lots of things	.

5. Certificate, Photographs (in JPEG/PNG) :





Certificate :

