



BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING, KOLHAPUR

Accredited by NAAC With 'A' Grade

Approved by AICTE, New Delhi & Affiliated to Shivaji University, Kolhapur
Near Chitranagari, Kolhapur - 416013 (MS)

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FOUNDER CHANCELLOR

Dr. Patangrao Kadam

M.A., LL. B., Ph. D.

PRINCIPAL

Dr. Vijay Ghorpade

M.E., Ph. D. (Computer)

NAAC SSR CYCLE- 2



Criterion 1	Curricular Aspects
Key Indicator 1.2	Academic Flexibility
1.2.1 Number of Add on /Certificate/Value added programs offered and online MOOC programs like SWAYAM, NPTEL etc. where the students of the institution have benefitted during the last five years	



BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING, KOLHAPUR

- **Organizing Department:** Electronics & Telecommunication Engineering.
- **Name of Add-on Course:** Add-on Course "Raspberry Pi"
- **Course Code :** ETC192001
- **Name of Coordinator:** 1. Mr. S.S.Pawar
2. Mr. M.S.Sonawane
- **Name of Resource Person:** 1. Mr. S.S.Pawar
2. Mr. M.S.Sonawane
- **Date of Activity:** 03/08/2019 to 12/10/2019.
- **Participant:** E&TC and CSE Students (80 Students)
- **Details of Activity:**

Raspberry Pi is a series of small single-board computers developed in the United Kingdom by the Raspberry Pi Foundation in association with Broadcom. The Raspberry Pi project originally leaned towards the promotion of teaching basic computer science in schools and in developing countries. It is widely used in many areas, such as for weather monitoring, because of its low cost, modularity, and open design. A good knowledge of Raspberry Pi will help improve the employment potential of your students.

- **Outcome of Activity:** To create awareness about Raspberry pi and use of Raspberry Pi for various applications to electronics engineering student.
- **How it Bridges gap between Industry and Academia:** Raspberry Pi provides a powerful open source Hardware and software for engineering and scientific applications. Knowledge of Raspberry Pi creates industry ready student using open-source software and hardware.

- **Photo:**



A handwritten signature in black ink, appearing to read "Pawar".

Mr. S.S.Pawar/ Mr. M.S.Sonawane
Course In-charge

A handwritten signature in black ink, appearing to read "Sonawane".

A handwritten signature in black ink, appearing to read "Desai".

Dr. K. R. Desai
HOD

A handwritten signature in blue ink, appearing to read "Ghorpade".

Dr. V. R. Ghorpade
Principal



**Social Transformation through Dynamic Education
BHARATI VIDYAPEETH'S**

COLLEGE OF ENGINEERING KOLHAPUR

DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING

Add-on Course “Raspberry Pi”

- **Course Code : ETC192001**

Course Objectives:

To create awareness about Raspberry pi and use of Raspberry Pi for various application to electronics engineering student.

Course Outcomes:

On successful completion of the course, the students should be able to

1. Understand the features of the Raspberry pi.
2. Understand the peripheral resources of Raspberry pi.
3. Implement python programming for application of Raspberry pi.
4. Build simple application projects using Raspberry pi board.

COURSE CONTENTS

Session	Contents	Hours
1.	Introduction of Raspberry Pi.	01
2.	Familiar with Raspberry Pi hardware.	03
3.	Study of input/ output ports.	02
4.	Study of different resources/blocks/ peripherals of Raspberry Pi.	04
5.	Study of Operating system of Raspberry Pi.	02
6.	Hands on: Installation of Operating System on Raspberry Pi.	03
7.	Hands on: Programming with Raspberry Pi.	03
8.	Hands on: Various Sensors used with Raspberry Pi.	03
9.	Hands on: Interfacing Sensors to Raspberry Pi.	03
10.	Hands on: Programming for various sensors.	04
11.	Hands on: Building projects using Raspberry Pi.	04

Hardware Requirement:

- ✓ Raspberry Pi Hardware KIT.
- ✓ Various Sensors, Ethernet cable, power supply adaptor.
- ✓ Desktop PC/Laptop, keyboard, monitor, SD card.
- ✓ LCD Projector with screen

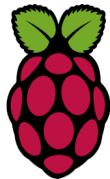
Resource Person:

1. Mr. Sanjay S. Pawar
2. Mr. Manik S. Sonawane



Mr. S.S.Pawar/ Mr. M.S.Sonawane
Course In-charge

Dr. K. R. Desai
HOD



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CERTIFICATE

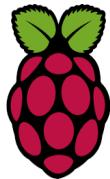
“Raspberry pi”

This is to certify that **Mr. / Ms. Anikita M. Patil** has successfully completed the add-on course on **“Raspberry Pi”** in an online mode, organized from 03/08/2019 to 12/10/2019 by the Department of Electronics & Telecommunication Engineering of Bharati Vidyapeeth's College of Engineering, Kolhapur.

Mr. S.S.Pawar/ Mr. M.S.Sonawane
Course In-charge

Dr. K. R. Desai
HOD

Dr. V. R. Ghorpade
Principal



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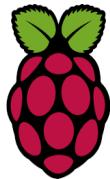
“Raspberry pi”

This is to certify that **Mr. / Ms. Siddhi S. Patole** has successfully completed the add-on course on **“Raspberry Pi”** in an online mode, organized from 03/08/2019 to 12/10/2019 by the Department of Electronics & Telecommunication Engineering of Bharati Vidyapeeth's College of Engineering, Kolhapur.

Mr. S.S.Pawar/ Mr. M.S.Sonawane
Course In-charge

Dr. K. R. Desai
HOD

Dr. V. R. Ghorpade
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CERTIFICATE

“Raspberry pi”

This is to certify that Mr. / Ms. Patil Priti J. has successfully completed the add-on course on “**Raspberry Pi**” in an online mode, organized from 03/08/2019 to 12/10/2019 by the Department of Electronics & Telecommunication Engineering of Bharati Vidyapeeth's College of Engineering, Kolhapur.

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Mr. S.S.Pawar/ Mr. M.S.Sonawane
Course In-charge

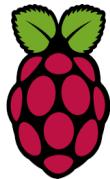
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Dr. K. R. Desai
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CERTIFICATE

“Raspberry pi”

This is to certify that Mr. / Ms. Dharmaraj Renge has successfully completed the add-on course on **“Raspberry pi”** in an online mode, organized from 03/08/2019 to 12/10/2019 by the Department of Electronics & Telecommunication Engineering of Bharati Vidyapeeth's College of Engineering, Kolhapur.

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Mr. S.S.Pawar/ Mr. M.S.Sonawane
Course In-charge

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Dr. K. R. Desai
HOD

A handwritten signature in black ink.

Dr. V. R. Ghorpade
Principal

**BHARATI VIDYAPEETH'S
COLLEGE OF ENGINEERING KOLHAPUR**

Department of Electronics & Telecommunication Engineering

- **Program Title:** Add-on Course “Raspberry Pi”
- **Name of Instructor/ Resource Person:** Mr. Sanjay S. Pawar
- **Date of Activity:** 03/08/2019 to 12/10/2019.

Attendance Sheet

68	Kailas. Balasaheb Shinde	Kailas										
69	Chandradip Sunesh Patil	Chandradip										
70	Panjeet Dhanaji Chotane	Panjeet										
71	Pratham Jay Malash Khivansone	Pratham										
72	Prathamesh Sunresh Kaddi	Prathamesh										
73	Pratik R. Chougale	Pratik										
74	Santosh. S. Jadhav	S. S. Jadhav	S. S. Jadhav	S. S. Jadhav	S. S. Jadhav	S. S. Jadhav	S. S. Jadhav	S. S. Jadhav	S. S. Jadhav	S. S. Jadhav	S. S. Jadhav	S. S. Jadhav
75	Harish. R. Pareek	Harish										
76	Atik I. mulia.	Atik										
77	Shamsa V. Desai	Shamsa										
78	Karan D. Kumbhae	Karan D.										
79	Vinay R. Patil	Vinay R.										
80	Manish R. Jadhav	Manish R.										

Group 2

Mr. S.S.Pawar

Instructor