

CERTIFICATE COURSE

Raspberry Pi & Python Programming

Department of Computer Science

No registration fee for students from MES College Erumely

Starting On - 10-11-2020



MES COLLEGE ERUMELY

(Approved by Govt. of Kerala & Affiliated to Mahatma Gandhi University)

A Minority Institution Certified by National Minority Education Commission

Directorate of Human Resource Development Council (HRDC)

Director : Rejoola O.M. - 8289 882 175

MES COLLEGE ERUMELY
DEPARTMENT OF COMPUTER SCIENCE
RASPBERRY PI PROGRAMMING USING PYTHON
(CERTIFICATE COURSE)

Objective:

To know about the basics of Linux Operating system and Cyber Security. Also, to familiar with Python Programming and IoT.

Total Hours: 30

MODULE – I	(6 hrs.)
LINUX: The Linux system – What is Linux? open source, FSF, Linux Architecture - Linux file systems, hardware requirements for Linux, Linux standard directories. Commands for files and directories – CD, LS, CP, RM, WHO, MKDIR, RMDIR, PWD. Creating, viewing, editing, and comparisons of files using touch, cat. Vi editor- WC, MORE, LESS, HEAD, TAIL, PR, CUT, SORT, UNIQ, GREP	
MODULE – II	(6 hrs.)
Python Programming: Introduction-Features of Python, Applications, Conditional Statements, Control Statements, Lists, tuples, and dictionaries; basic list, tuple and dictionary operations, OOPs concept, Creation of class and objects, Inheritance, Polymorphism, Functions- arguments and return values; formal vs actual arguments, Creating Modules, import Statement, Locating Modules, Basic File Operations.	
MODULE – III	(6 hrs.)
Internet Of Things: Introduction – features, components and architecture of IOT, working principle, IOT development Boards, communication technologies, IOT applications.	
MODULE – IV	(6 hrs.)
Raspberry Pi: Introduction, RPi models, RPi programming languages and OS, GPIO interfacing, Interfacing with Raspberry Pi, controlling the brightness of LED, switch interfacing, temperature sensor.	
MODULE – V	(6 hrs.)
Computer Security: Types of attacks, authentication, cryptography, IOT security, challenges in IOT, general challenges in IOT connectivity, security concerns in IOT enabled devices, Raspberry Pi security vulnerabilities, Raspberry network security.	

Reference:

- “UNIX Concepts and Applications”- Sumitabha Das
- “The Fundamentals of Python First Programs– Kenneth A. Lambert
- “Internet of Things” – Michael Mitter
- “Internet of Things: Architecture & Design” – Raj Kamal
- “Raspberry Pi cook book “- Simon Monk

About the Course

The Raspberry Pi is a small, affordable single-board computer that you will use to design and develop fun and practical IoT devices while learning programming and computer hardware. In addition, you will learn how to set up the Raspberry Pi environment, get a Linux operating system running, and write and execute some basic Python code on the Raspberry Pi. You will also learn how to use Python-based IDE (integrated development environments) for the Raspberry Pi and how to trace and debug Python code on the device. Please note that this course does not include discussion forums.

The Raspberry Pi was designed to encourage young people to learn to how to code- the Pi in Raspberry Pi even comes from the Python programming language.

Who can apply : **Students Studying in BCA/BSc Programme**

The programme registration will be open from October - 15th
Classes Strated From -10-11-2020

Certificate will be issued on sucessful completion of the course

Total Hours : 30

From

Mrs. Betty Joseph

HOD, Computer Science Department

MES College Erumely

To

The Principal

MES College Erumely

Subject: Request for the approval of Certificate course

Sir

Our department designed a certificate course "Raspberry Pi programming using Python" for our degree students. Course duration is 30 hours. So please give the approval for the course.

Thanking you,

Yours faithfully

Betty Joseph

[Handwritten signature]
30/10/2020

Erumely

30/10/2020

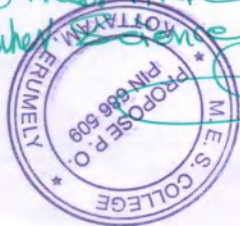
Forwarded to Principal for Approval
Approved the Certificate Course submitted
By Direct HOD and Hon Department of Computer Science
[Signature]
30/10/2020

[Signature]
30/10/2020

JITHESH K. S.
PRINCIPAL
TRAINING & ACADEMIC -1

Received copy
[Signature]
16/11/2020

M.AHEEN
PRINCIPAL
M.E.S. COLLEGE ERUMELY



MES COLLEGE ERUMELY

HUMAN RESOURCE DEVELOPMENT CENTRE

1. Name of the certificate course : Raspberry Pi Programming Using Python
2. Offered Department : Computer Science
3. Duration of the course : 30 Hours
4. Commencement of course : 9th November 2020
5. Proposed date for completion of the course : 10th December 2020
6. No. of students Applied : 67
7. No. of students enrolled : 67
8. Mode of evaluation : Online Exam
9. Course Materials : Slides, Docs
10. Syllabus of course(enclosed) : Yes
11. Objectives of the course(enclosed) : Yes
12. Details of Faculties : Suhana E,Asha Jaison,Shabeena Beegom KH
13. Certification Authority : HRDC, MES College Erumely
14. Details of Board of studies : Mrs. Betty Joseph,Mrs. Sumayya P A,
Dr. Raji mol A, Mr. Jithesh KS, Mr. Maheen M N
15. Recommendation from board of studies :
16. Date of approval from board of studies :
17. Course approved by

- HOD
- Director HRDC
- Subject Expert
- Vice Principal Academic & Training

Betty Joseph
Sumayya.P.A. 30/10/2020

Dr. Raji mol A.

Jithesh K.S.
30/10/2020



Principal

MAHEEN M. N.
PRINCIPAL
M.E.S. COLLEGE ERUMELY
30/10/2020

JITHESH K. S.
VICE PRINCIPAL
TRAINING & ACADEMIC -1

MES COLLEGE ERUMELY

Dept.Of Computer Science

Raspberry Pi Programming using Python

(Certificate Course)

Total Hours : 30

MODULE – I (6 hrs.)

LINUX : The Linux system – What is Linux ?,open source, FSF, Linux Architecture - Linux file systems, hardware requirements for Linux, Linux standard directories. Commands for files and directories – cd, ls, cp, rm, who, mkdir, rmdir, pwd. Creating ,viewing, editing, and comparisons of files using touch, cat. Vi editor- wc,more,less,head,tail,pr, cut, sort, uniq, grep

MODULE – II (6 hrs.)

Python Programming : Introduction-Features of Python, Applications, Conditional Statements, Control Statements, Lists, tuples, and dictionaries; basic list, tuple and dictionary operations, OOPs concept, Creation of class and objects, Inheritance, Polymorphism, Functions- arguments and return values; formal vs actual arguments, Creating Modules, import Statement, Locating Modules, Basic File Operations.

MODULE – III (6 hrs.)

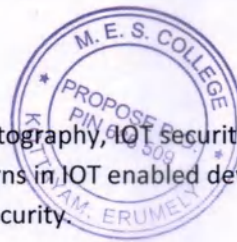
Internet Of Things : Introduction – features, components and architecture of IOT, working principle, IOT development Boards , communication technologies , IOT applications.

MODULE – IV (6 hrs.)

Raspberry Pi : Introduction , RPi models , RPi programming languages and OS, GPIO interfacing, Interfacing with Raspberry Pi, controlling the brightness of LED, switch interfacing, temperature sensor.

MODULE – V (6 hrs.)

Computer Security : Types of attacks, authentication, cryptography, IOT security, challenges in IOT, general challenges in IOT connectivity, security concerns in IOT enabled devices, Raspberry Pi security vulnerabilities, Raspberry network security.



Reference:

1. "UNIX Concepts and Applications " - Sumitabha Das
2. "The Fundamentals of Python First Programs– Kenneth A. Lambert
3. "Internet of Things" – Michael Mitter
4. "Internet of Things : Architecture & Design" – Raj Kamal
5. "Raspberry Pi cook book " - Simon Monk



Approved by

Dr. RAJIMOL A.
Associate Professor & Head
Department of Computer Applications
Marian College Kuttikkanam (Autonomous)

JITHESH K. S.
VICE PRINCIPAL
TRAINING & ACADEMIC -1

**MES COLLEGE ERUMELY
DEPARTMENT OF COMPUTER SCIENCE
ATTENDANCE RECORD FOR CERTIFICATE COURSE**

NAME OF THE FACULTY		SHABEENA BEEGOM K H		SHABEENA BEEGOM K H		SHABEENA BEEGOM K H		SHABEENA BEEGOM K H	
HOUR ALLOTTED		03/12/2020(2 hrs.) & 5/12/2020(2 hrs)		6/12/2020(2 Hrs)		02/1/2021(2 Hrs.) & 04/1/2021(2 Hrs)		8/1/2021(1.5 Hrs.)&9/1/2021(2 Hrs.)	
Sl.No	NAME OF THE STUDENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT
III Semester BCA									
1	Abdul Raof V A	0	1	1	0	0	0	0	0
2	Abhilash Mathew V	0	0	0	0	0	0	0	0
3	Afiya Ismail	0	1	1	1	0	1	0	0
4	Ajmalliyas	0	0	0	0	0	0	0	0
5	Ajo Siby	0	0	0	0	0	0	0	0
6	Aleena Abraham	0	0	0	0	0	0	0	0
7	Alfiya Yoosuf	0	0	0	1	0	1	1	1
8	Alfiya A Kabeer	0	1	1	0	0	1	0	1
9	Alfiya K	0	0	0	1	1	1	1	1
10	Alfiya P S	0	0	0	0	1	1	1	1
11	Amalanthosh	0	1	1	1	0	1	1	1
12	Amal T Sabu	0	1	1	0	1	1	0	0
13	Amal Varghese	0	0	0	0	1	1	0	1
14	Anandu A S	0	0	0	0	0	0	1	0
15	Arif Mohammed	0	1	1	0	0	0	0	1
16	Ashna S	0	0	0	0	0	1	1	0
17	Athulya Manoj	0	0	0	0	1	0	0	0
18	Emil Thomas	0	1	1	0	0	0	1	1
19	Fahad C Jamal	0	0	0	0	1	1	1	1
20	Fathima Anas	0	1	1	0	0	0	0	0
21	Filjokurtian	0	0	0	0	0	1	1	1

22	Firoz Mohammed	0	1	1	1	1	1	1	1
23	Jerry Mol P R	0	0	0	0	0	0	0	0
24	Nikhil Gopinath	0	0	0	0	0	0	0	0
25	Nourin Nazar	1	0	0	1	1	1	1	1
26	Rakhi P S	0	0	0	0	0	0	0	0
27	Reshma Suresh	0	1	1	1	0	1	1	1
28	Resna Ibrahim	0	0	0	0	1	0	0	0
29	Sabin Soman Mathew	0	0	0	1	0	1	1	1
30	Sabith Siraj	0	0	0	0	0	0	0	1
31	Shahanabasheer	0	0	0	0	0	0	0	0
32	Shibina Shibu	0	0	0	1	1	1	1	0
33	Siddarth Dileep	0	1	1	0	0	0	0	0
34	Sruthi S Nair	0	1	1	1	1	1	1	1
35	Tincymol Babu	1	1	1	1	1	1	1	1
V Semester BCA									
1	Abhijith Raj	1	0	0	0	0	0	0	0
2	Abhiram V Sathyan	0	0	0	0	0	0	0	0
3	Abin Alosious	0	0	0	0	0	0	0	0
4	Adarsh P A	0	0	0	0	0	0	0	0
5	Afnan Najeed	0	0	0	0	0	0	0	0
6	Afsal Babu	1	1	1	0	0	0	0	0
7	Afsana Karim	0	0	0	0	0	0	0	0
8	Aiswarya Mohanan	0	0	0	0	0	0	0	0
9	Anupama S S	0	1	0	1	1	1	0	1
10	Anwar Razak	1	1	0	1	1	1	1	1
11	Aparna K Manoj	1	1	1	0	0	0	0	0
12	Aravind Prasad	0	1	1	1	1	1	0	0
13	Archana N S	1	0	1	0	0	0	0	0
14	Arun Joseph	0	0	0	0	0	0	0	0
15	Benilee George	0	0	0	0	0	0	0	0
16	Bijitha Biju	1	1	0	1	1	1	1	1

17	Cijo Joseph	0	0	0	0	0	0	0	0	0
18	Jackson George	1	0	1	0	0	1	0	0	0
19	Jasiya KY	1	1	1	1	1	1	1	1	1
20	Jithu Philip	0	0	0	0	0	0	0	0	0
21	Kiran P R	0	0	0	0	0	0	0	0	0
22	Marfiya Salim	0	1	0	1	1	1	1	0	0
23	Merin Joseph	0	0	0	0	0	1	0	0	0
24	Muhammed Yaseen	0	0	0	0	0	0	0	0	0
25	Sangeetha S	1	1	1	1	1	1	1	1	1
26	Sarun Jacob George	0	0	0	0	0	0	0	0	0
27	Shameer Salim	0	0	0	0	0	0	0	0	0
28	Shamjad Mazood Nazer	1	1	1	1	1	1	1	1	1
29	Sharafiya T S	1	1	0	0	0	0	0	0	0
30	Shameema Sathar	0	0	0	0	0	0	0	0	0
31	Shibin Shaji	0	0	0	0	0	0	0	0	0
32	Varghese Thomas	0	1	1	1	1	1	1	1	0

[Signature]
HRDC Director

[Signature]
Betty Joseph
HOD



[Signature]
MAHEEN M. N.
PRINCIPAL
M.E.S. COLLEGE ERUMELY

MES COLLEGE ERUMELY
DEPARTMENT OF COMPUTER SCIENCE
ATTENDANCE RECORD FOR CERTIFICATE COURSE

DATE : 10/1/2021

NAME OF THE FACULTY		SUHANA E		SUHANA E	
		9/1/2021		10/1/2021	
Sl.No	NAME OF THE STUDENT	HA	PRESENT	HA	PRESENT
III Semester BCA					
1	Abdul Raof V A	3	0	3	1
2	Abhilash Mathew V	3	0	3	1
3	Afiya Ismail	3	1	3	1
4	Ajmalilliyas	3	1	3	1
5	Ajosiby	3	0	3	0
6	Aleena Abraham	3	1	3	0
7	Alfiyoosuf	3	1	3	1
8	Alfiya A Kabeer	3	1	3	1
9	Alfiya K	3	1	3	1
10	Alfiya P S	3	1	3	0
11	Amalsanthosh	3	1	3	1
12	Amal T Sabu	3	0	3	0
13	Amal Varghese	3	0	3	0
14	Anandu A S	3	0	3	0
15	Arif Mohammed	3	1	3	0
16	Ashna S	3	0	3	0
17	Athulya Manoj	3	0	3	0
18	Emil Thomas	3	1	3	0
19	Fabad C Jamal	3	0	3	1
20	Fathimaanas	3	1	3	0
21	Filjokurian	3	1	3	1
22	Firoz Mohammed	3	1	3	0
23	Jerry Mol P R	3	0	3	1

19	Jasiya KY	3	1	3	1
20	Jithu Philip	3	0	3	0
21	Kiran P R	3	1	3	0
22	Marfiya Salim	3	0	3	0
23	Merin Joseph	3	1	3	0
24	Muhammed Yaseen	3	0	3	0
25	Sangeetha S	3	0	3	0
26	Sarun Jacob George	3	1	3	1
27	Shameer Salim	3	0	3	0
28	Shamjad Mazood Nazer	3	1	3	0
29	Sharafiya T S	3	0	3	1
30	Shemeema Sathar	3	0	3	0
31	Shibin Shaji	3	0	3	0
32	Varghese Thomas	3	0	3	1

[Signature]
25/11/2020

HRDC Director.

[Signature]

Betty Joseph
HOD



MAHEEN M. N.
PRINCIPAL
M.E.S. COLLEGE ERUMELY

MES COLLEGE ERUMELY
DEPARTMENT OF COMPUTER SCIENCE
ATTENDANCE RECORD FOR CERTIFICATE COURSE

NAME OF THE FACULTY		ASHA JAISON		ASHA JAISON		ASHA JAISON	
Date		10/11/2020		11/11/2020 & 12/11/2020		26/11/2020	
Sl. No	NAME OF THE STUDENT	PRESENT(1 hr)	PRESENT(2 hrs)	PRESENT(2 Hrs.)	PRESENT(2 Hrs.)	PRESENT(2 Hrs.)	PRESENT(2 Hrs.)
III Semester BCA							
1	Abdul Raof V A	1	1	1	1	1	1
2	Abhilash Mathew V	0	0	0	0	0	0
3	Afiya Ismail	0	0	0	0	0	0
4	Ajmal Illiyas	1	1	1	1	1	1
5	Ajo Siby	1	1	1	1	1	1
6	Aleena Abraham	1	1	1	1	1	1
7	Alfia Yoosuf	1	1	1	1	1	1
8	Alfiya A Kabeer	1	1	1	1	1	1
9	Alfiya K	1	1	1	1	1	1
10	Alfiya P S	1	1	1	1	1	1
11	Amal Santhosh	1	1	1	1	1	1
12	Amal T Sabu	1	1	1	1	1	1
13	Amal Varghese	0	0	0	0	0	0
14	Anandu A S	0	0	0	0	0	0
15	Arif Mohammed	1	1	1	1	1	1
16	Ashna S	0	0	0	0	0	0
17	Athulya Manoj	1	1	1	1	1	1
18	Emil Thomas	1	1	1	1	1	1
19	Fahad C Jamal	0	0	0	0	0	0
20	Fathimaanas	1	1	1	1	1	1
21	Filjokurian	0	0	0	0	0	0
22	Firoz Mohammed	1	1	1	1	1	1
23	Jerry Mol P R	0	0	0	0	0	0

24	Nikhil Gopinath	1	1	1	1
25	Nourin Nazar	1	1	1	1
26	Rakhi P S	0	0	0	0
27	Reshma Suresh	1	1	1	1
28	Resna Ibrahim	0	0	0	0
29	Sabin Soman Mathew	1	1	1	1
30	Sabithsiraj	1	1	1	1
31	Shahanabasheer	0	0	0	0
32	Shibinashibu	0	0	0	0
33	Siddarth Dileep	1	1	1	1
34	Sruthi S Nair	1	1	1	1
35	Tincymolbabu	1	1	1	1
V semester BCA					
1	Abhijith Raj	1	1	1	1
2	Abhiram V Sathyan	1	1	1	1
3	Abin Alosious	1	1	1	1
4	Adarsh P A	1	1	1	1
5	Afnan Najeeb	0	0	0	0
6	Afsal Babu	1	1	1	1
7	Afsana Karim	0	0	0	0
8	Aiswarya Mohanan	0	0	0	0
9	Anupama S S	1	1	1	1
10	Anwar Razak	1	1	1	1
11	Aparna K Manoj	1	1	1	1
12	Aravind Prasad	1	1	1	1
13	Archana N S	1	1	1	1
14	Arun Joseph	1	1	1	1
15	Benlee George	1	1	1	1
16	Bijitha Biju	1	1	1	1
17	Cijo Joseph	0	0	0	0
18	Jackson George	1	1	1	1

19	Jasiya K Y	1	1	1	1
20	Jithu Philip	0	0	0	0
21	Kiran P R	0	0	0	0
22	Marfiya Salim	1	1	1	1
23	Merin Joseph	1	1	1	1
24	Muhammed Yaseen	0	0	0	0
25	Sangeetha S	1	1	1	1
26	Sarun Jacob George	0	0	0	0
27	Shameer Salim	0	0	0	0
28	Shamjad Mazood Nazer	1	1	1	1
29	Sharafiya T S	0	0	0	0
30	Shemeema Sathar	0	0	0	0
31	Shibin Shaji	0	0	0	0
32	Varghese Thomas	0	1	1	1

HRDC Director.

MAHEESH N.
PRINCIPAL
M.E.S. COLLEGE ERUMELY

Betty Joseph
HOD



MES COLLEGE ERUMELY
DEPARTMENT OF COMPUTER SCIENCE
ATTENDANCE RECORD FOR CERTIFICATE COURSE

TOTAL HOURS : 30

	NAME OF THE STUDENT	Present	Percentage	Remark
III Semester BCA				
1	Abdul Raoof V A	14	46.6	
2	Abhilash Mathew V	3	10	
3	Afiya Ismail	13.5	45	
4	Ajmalilliyas	13	43.3	
5	Ajo Siby	7	23.3	
6	Aleena Abraham	22	73.3	
7	Alfia Yoosuf	18	60	
8	Alfiya A Kabeer	22.5	75	
9	Alfiya K	21	70	
10	Alfiya P S	19	63.3	
11	Amal Santhosh	26	86.6	
12	Amal T Sabu	18	60	
13	Amal Varghese	2	6	
14	Anandu A S	1.5	5	
15	Arif Mohammed	19.5	65	
16	Ashna S	2	6	
17	Athulya Manoj	10.5	35	
18	Emil Thomas	24	80	
19	Fahad C Jamal	2	6	
20	Fathima Anas	24	80	
21	Filjokurian	3	10	
22	Firoz Mohammed	28	93.3	
23	Jerry Mol P R	0	0	
24	Nikhil Gopinath	10	33.3	

25	Nourin Nazar	26	86.6	
26	Rakhi P S	0	0	
27	Reshma Suresh	23	76.6	
28	Resna Ibrahim	2	6	
29	Sabin Soman Mathew	20	66.6	
30	Sabith Siraj	16.5	55	
31	Shahana Basheer	7	23.3	
32	Shibina Shibu	13.5	45	
33	Siddarth Dileep	17	56.6	
34	Sruthi S Nair	22	73.3	
35	Tincymolbabu	27	90	
V semester BCA				
1	Abhijith Raj	15	50	
2	Abhiram V Sathyan	13	43.3	
3	Abin Alosious	7	23.3	
4	Adarsh P A	13	43.3	
5	Afnan Najeeb	0	0	
6	Afsal Babu	13	43.3	
7	Afsana Karim	0	0	
8	Aiswarya Mohanan	0	0	
9	Anupama S S	16	53.3	
10	Anwar Razak	28	93.3	
11	Aparna K Manoj	13	43.3	
12	Aravind Prasad	24.5	81.6	
13	Archana N S	19	63.3	
14	Arun Joseph	7	23.3	
15	Benlee George	7	23.3	
16	Bijitha Biju	28	93.3	
17	Cijo Joseph	0	0	
18	Jackson George	15.5	51.6	
19	Jasiya K Y	30	100	

20	Jithu Philip	0	0
21	Kiran P R	3	10
22	Marfiya Salim	16.5	55
23	Merin Joseph	12	40
24	Muhammed Yaseen	0	0
25	Sangeetha S	27	90
26	Sarun Jacob George	3	10
27	Shameer Salim	0	0
28	Shamjad Mazood Nazer	30	100
29	Sharafiya T S	4	13.3
30	Shemeema Sathar	0	0
31	Shibin Shaji	0	0
32	Varghese Thomas	22.5	75

[Handwritten Signature]

HRDC. Director.

[Handwritten Signature]
Bobby Joseph
HOD

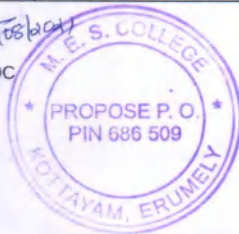
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MAHEEN M.A.
PRINCIPAL
M.E.S. COLLEGE ERUMELY



MES COLLEGE ERUMELY
Certificate Course Examination August 2021
DEPARTMENT OF COMPUTER SCIENCE
RASPBERRY PI PROGRAMMING USING PYTHON

Sl.No.	Name	Reg.No	Score
1	Sangeetha S	180021093597	29 / 100
2	Jasiya K Y	180021093585	67 / 100
3	Bijitha Biju	180021093577	47 / 100
4	Anupama s s	180021093568	68 / 100
5	Ben lee george	180021093576	32 / 100
6	Aiswarya Mohanan	180021093566	51 / 100
7	RAKHI P S	35	42 / 100
8	ALFIYA P.S	10	68 / 100
9	Marfiya salim	18002103590	32 / 100
10	Fewin James	180021093583	22 / 100
11	Alfia yoosuf	8	35 / 100
12	Jeffin Thomas	27	65 / 100
13	Varghese Thomas	180921093605	28 / 100
14	Sharafiya ts	170021098816	37 / 100
15	Abhilash Mathew V	190021090333	58 / 100
16	Filjo kurian	25	82 / 100
17	Nikhil Gopinath	190021090364	79 / 100
18	Aswin	190021090350	79 / 100
19	Siddharth Dileep	42	82 / 100
20	Jerry mol P. R	28	58 / 100
21	Nandhu R	190021090363	60 / 100
22	Afsal Babu	180021093564	52 / 100
23	Nourin Nazar	190021090365	77 / 100
24	Sruthi S. Nair	190021090374	79 / 100
25	Reshma suresh	36	74 / 100
26	Tincy mol Babu	190021090376	78 / 100
27	Alfiya.k	190021090342	78 / 100
28	Anandhusaleemkumar	190021090347	58 / 100
29	Shibina shibu	41	45 / 100
30	Resna Ibrahim	37	58 / 100
31	Archana N S	180021093572	61 / 100
32	Sabith siraj	190021090370	61 / 100
33	Fathima Anas	190021090355	88 / 100
34	Arif Muhammed	180021093573	88 / 100
35	Abin Alosious	180021093561	87 / 100
36	Shameer Salim	180021093599	82 / 100
37	sudheesh	180021093604	89 / 100
38	Amal varghese	190021090345	35 / 100
39	ABDUL RAOOF	190021090332	34 / 100
40	Ajo Siby	190021090337	35 / 100
41	Anwar Razack	180021093569	91 / 100
42	Jerin Mathew	180021093586	88 / 100
43	Athulya Manoj	20	86 / 100
44	Afiya Ismail	3	86 / 100
45	Alfiya A Kabeer	9	85 / 100
46	Abhijith Raj	180021093559	78 / 100
47	Adithua	2	0 / 100
48	Jomo Jomon joseph	29	24 / 100
49*	Shamjad Mazood Nazer	180021093600	84 / 100

Rejoola O.M
Director HRDC

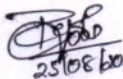


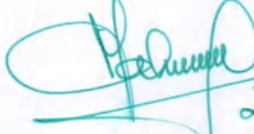
Principal
MAHEEN M. N.
M.E.S. COLLEGE ERUMELY

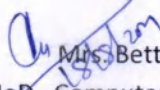
MES COLLEGE ERUMELY
Department of Computer Science
CERTIFICATE COURSE- 2020-2021

This is to certify that as per the HRDC director Board approval , we conducted a Certificate Course on Rasperry Pi Programming using Python. The classes are handled by the faculties , Mrs. Asha Jaison , Mrs. Shabeena Beegom K H and Mrs. Suhana E .

Hours taken to complete the course	: 30
Total students registered for the course	: 67
The number of students having above 75 % attendance	: 15
The number of students having below 75% attendance	: 52
Date of commencement of the course	: 10/11/2020
Date of completion of the course	: 10/01/2021


25/08/2021
HRDC Director


25/1/2021


Mrs. Betty Joseph
HoD , Computer Science



MES COLLEGE ERUMELY

(Approved by Govt. of Kerala & Affiliated to Mahatma Gandhi University)
A Minority Institution Certified by National Minority Education Commission

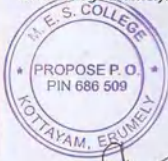


No. MES/EC/HRDC/1972

Date: 02/09/2021

CERTIFICATE OF MERIT

This is to certify that Sri/Kumari Emil Thomas
has successfully completed the 30 hours Certificate Course entitled "Raspberry Pi & Python Programming"
Conducted by Departement of Computer Science and Directorate of Human Resource Development Council (HRDC),
MES College Erumely.



Betty Joseph
HOD Department of Computer Science

Rejola O. M.
Director HRDC

M. An M. N.
Principal

MES College PO, Erumely, Kottayam(Dist), Kerala -686509 Ph: 04828 254393, 255444; Fax: 04828 255464
Email: principal@meserumelycollege.ac.in, www.meserumelycollege.ac.in