

From

The Head of the Department

Department of Computer Application

M E S KEVEEYAM College, Valanchery

To

The principal

M E S KEVEEYAM College, Valanchery

Sir,

Sub: Request for the Approval of Certificate Course

The Department of Computer Application is planning to conduct a certificate Course on "Virtualisation and Cloud Computing" of 30 hours duration for the second year PG students. So kindly grant permission for the same.

Thanking You

Yours faithfully,



Dept of Computer Application  
MES KEVEEYAM COLLEGE  
Valanchery, 676552  
Malappuram District

Place: Valanchery

Date :03 /10/2022



SHAJID P P  
ASSISTANT PROFESSOR  
IN CHARGE OF PRINCIPAL  
M E S KEVEEYAM COLLEGE  
VALANCHERY, PIN 676 552



# MES KEVEEYAM COLLEGE

Re-accredited by NAAC with A+ Grade(3.44)  
(Affiliated to the University of Calicut)

Valanchery – 676552, Malappuram Dt., Kerala

Phone: 0494 – 2644380, 2642670, 2641347(Fax), [www.meskvcollege.org](http://www.meskvcollege.org)

Email: [principal@meskvcollege.org](mailto:principal@meskvcollege.org)

Date: 11/10/2022

Order No. Acs/2022-23/03

## *Proceedings of the Principal, MES Keveeyam College Valanchery*

(Present: Dr. Prof. Shajid P P)

- Ref: (1) Request from the Head of the Department of Computer Application  
dt:03/10/2022  
(2) Minutes of Board of Studies meeting for approval of the syllabus

### ORDER

As per reference cited (1), request was received from the HOD, Department of Computer Application to start a short term course on "Virtualisation and Cloud Computing". In the same letter, the head of the department has recommended a panel of academicians to be included in the Board of Studies.

The department of Computer Application is hereby given sanction to conduct a short term course on Virtualisation and Cloud Computing to the PG students of the college.

The board of studies for the above course is constituted with the following members

1. Mrs.fareeda p: HoD& Assistant Professor, Department of computer application ,MES Keveeyam Valanchery
2. Mrs.jasna kv: Assistant Professor, Department of computer application ,MES Keveeyam Valanchery
3. Mrs.Akshaya b, Assistant Professor, Department of computer application ,MES Keveeyam Valanchery
4. Mrs.Ramseena n Assistant Professor, Department of computer application ,MES Keveeyam Valanchery
5. Mrs.Rafna k , Assistant Professor, Department of computer application ,MES Keveeyam Valanchery
6. Ms.Nusrath, Assistant Professor, MES Ponnani College
7. Ms.Sujithra,Assistant Professor, Sahrdaya College, Kodakara

Order is issued accordingly.

Prof. Shajid P P

Principal

  
**SHAJID P P**  
ASSISTANT PROFESSOR  
IN CHARGE OF PRINCIPAL  
M E S KEVEEYAM COLLEGE  
VALANCHERY, PIN 676 532

Copy to

1. HOD, Department of Computer Application
2. File






# MINUTES OF BOARD OF STUDIES MEETING

Date: 10/10/2022

Time: 3.00 PM

Location: Department of Computer application

## Attendees

1. Mrs.fareeda P: HoD& Assistant Professor, Department of computer application ,MES Keveeyam Valanchery 
2. Mrs.jasna KV: Assistant Professor, Department of computer application ,MES Keveeyam Valanchery 
3. Mrs.Akshaya B, Assistant Professor, Department of computer application ,MES Keveeyam Valanchery 
4. Mrs.Ramseena N Assistant Professor, Department of computer application ,MES Keveeyam Valanchery 
5. Mrs.Shamna K, Assistant Professor, Department of computer application ,MES Keveeyam Valanchery 

## Agenda

1. Introduce the importance of Certificate Course – HoD introduced the Certificate Course, its importance, and students' better
2. Syllabus discussion – schedule total hours for complete
3. Discussed about the Practical Output.

## Decisions

1. Decide to conduct a certificate course on Virtualisation and Cloud Computing.
2. Detailed syllabus discussed.
3. Ensure Practical knowledge on the same through Lab
4. Create a request letter, getting approval from the Principal.

## Action Item

1. Mrs.Fareeda p take over
2. Mrs.Jasna kv the structuring syllabus
3. Practicals handle by & Mrs.Akshaya b
4. Time table & certificate arrangements are handled by Mrs.Shamna k

Minutes Recorded by: Mrs.Ramseena n These minutes will be circulated to all committee members for their reference & review.

  
SHAHEED P D  
ASSISTANT PROFESSOR  
IN CHARGE OF PRINCIPAL  
M.E.S KEVEEYAM COLLEGE  
VALANCHERY, PIN 676 552



**MES KEVEEYAM COLLEGE VALANCHERY**  
**DEPARTMENT OF COMPUTER APPLICATION**

***SHORT TERM COURSE ON***

**Virtualisation and Cloud Computing**

***KVM/CC/BCA/3***

**(2022-2023)**

**Objectives**

- Provides foundational knowledge of virtualisation and cloud computing concepts, architectures, and models.
- Familiarise students with the key technologies, tools, and platforms used in virtualization and cloud computing.
- Develop practical skills for deploying, managing, and troubleshooting virtualized and cloud-based systems.
- Prepare students for relevant certifications and job roles in the virtualization and cloud computing domains.

**Outcome**

- Able to deploy, manage, and troubleshoot virtual and cloud environments.
- Problem-solving Abilities.
- Awareness of Emerging trends

**Course Contents**

- Theory : 8 Hours duration
- Lab : 22 Hours duration

**Scheme of Evaluation**

- Written Examination : 60 Marks

***A Grade: 80% and above, B Grade: 60-79% %, C Grade: 40-59%%, Below 40% D Grade***

  
**SHAHEED P.P.**  
ASSISTANT PROFESSOR  
IN CHARGE OF PRINCIPAL  
M.E.S KEVEEYAM COLLEGE  
VALANCHERY, PIN 676 552

## KVM/CC/BCA/3- Virtualisation and Cloud Computing

(2022-2023)

### SYLLABUS

#### Unit 1:( 6 hrs)

Overview of Virtualization,Types of Virtualization (Hardware, Software, Network, Storage), Virtual Machines vs. Containers,Benefits and Use Cases of Virtualization

#### Unit2 :( 6 hrs)

Hypervisors (Type 1 and Type 2), Introduction to VMware, Hyper-V, VirtualBox, Creating Virtual Machines, Managing Virtual Machine Resources

#### Unit3 :(6 hrs)

Cloud Computing Basics, Cloud Deployment Models (Public, Private, Hybrid), Cloud Service Models (IaaS, PaaS, SaaS),Benefits and Challenges of Cloud Computing

#### Unit4 :( 6 hrs)

Overview of AWS, Azure, Google Cloud, Core Services in Cloud Platforms (Compute, Storage, Networking),Managing Cloud Resources,Security and Compliance in the Cloud

#### Unit5 :( 6 hrs)

Setting up Virtual Machines, Deploying Applications on Virtual Machines,Using Containers (Docker), Deploying Applications on Kubernetes, Practical Exercises on a Cloud Platform (AWS/Azure)

#### References :

1. Textbook: Nath, Dilip C. "Virtualization and Cloud Computing: A Practical Guide". Pearson Education.
2. Additional Resources: Online tutorials, documentation from cloud providers (AWS, Azure, Google Cloud), and academic papers on virtualization and cloud computing.

  
**SHAJID P. P.**  
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IN CHARGE OF PRINCIPAL  
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VALANCHERY, PIN 576 552





**MES KEEVEYAM COLLEGE**  
VALANCHERY | MALAPPURAM | KERALA | INDIA

**DEPARTMENT OF  
COMPUTER APPLICATION  
PRESENTS**



*Shajid P P*  
**SHAJID P P**  
ASSISTANT PROFESSOR  
IN CHARGE OF PRINCIPAL  
MES KEEVEYAM COLLEGE  
VALANCHERY, PIN 678 552

**CERTIFICATE COURSE ON  
VIRTUALIZATION AND CLOUD  
COMPUTING**

**REGISTRATION DEADLINE:10-10-2022**

**DURATION:15 days**

**ELIGIBILITY:PG student**



**TIME TABLE FOR THE SHORT TREM COURSE ( 13-10-2022 to 11-1-2023)**

| DATE       | DAY       | NAME OF FACULTY<br>ENGAGING THE CLASS | TIME                     |
|------------|-----------|---------------------------------------|--------------------------|
| 13/10/2022 | THURSDAY  | RAM                                   | 8.30-9.30<br>3.30-4.30   |
| 14/10/2022 | FRIDAY    | RAF                                   | 8.30-9.30<br>3.30-4.30   |
| 17/10/2022 | WEDNESDAY | FAR                                   | 8.30-9.30<br>3.30-4.30   |
| 18/10/2022 | THURSDAY  | JAS                                   | 8.30-9.30<br>3.30 - 4.30 |
| 19/10/2022 | FRIDAY    | AKS                                   | 8.30-9.30<br>3.30-4.30   |
| 20/11/2022 | TUESDAY   | SHA                                   | 8.30-9.30<br>3.30-4.30   |
| 21/11/2022 | WEDNESDAY | RAM                                   | 8.30-9.30<br>3.30-4.30   |
| 22/11/2022 | THURSDAY  | RAF                                   | 8.30-9.30<br>3.30-4.30   |
| 02/1/2023  | FRIDAY    | FAR                                   | 8.30-9.30<br>3.30-4.30   |
| 03/1/2023  | MONDAY    | JAS                                   | 8.30-9.30<br>3.30-4.30   |
| 04/1/2023  | TUESDAY   | AKS                                   | 8.30-9.30<br>3.30-4.30   |
| 05/1/2023  | WEDNESDAY | SHA                                   | 8.30-9.30<br>3.30-4.30   |
| 6/1/2023   | THURSDAY  | JAS                                   | 8.30-9.30<br>3.30-4.30   |
| 10/1/2023  | FRIDAY    | AKS                                   | 8.30-9.30<br>3.30-4.30   |
| 11/1/2023  | MONDAY    | RAM                                   | 8.30-9.30<br>3.30-4.30   |

RAM-RAMSEENA      FAR-FAREEDA

RAF-RAFNA      AKS-AKSHAYA

JAS-JASNA      SHA-SHAMNA

  
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**HOD**  
 Dept of Computer Application  
 MES KEVEEYAM COLLEGE  
 Valanchery, 676552  
 Malappuram District



**MES KEVEEYAM COLLEGE, VALANCHERY**  
**DEPARTMENT OF COMPUTER APPLICATIONS**

| SHORT TERM COURSE ON VIRTUALISATION AND CLOUD COMPUTING |                   |                    |          |          |          |          |          |          |          |          |          |  |
|---|-------------------|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| SI NO   | STUDENT NAME      | STUDENT ATTENDANCE |          |          |          |          |          |          |          |          |          |  |
|   |                   | 13/10/22           | 14/10/22 | 17/10/22 | 18/10/22 | 19/10/22 | 20/10/22 | 21/10/22 | 22/10/22 | 23/10/22 | 24/10/22 |  |
| 1   | AMRUTHA K V       | Amrutha            | Amrutha  | Amrutha  | Amrutha  | Amrutha  | Amrutha  | Amrutha  | Amrutha  | Amrutha  | Amrutha  |  |
| 2   | ASWATHY P P       | As                 | As       | As       | As       | As       | As       | As       | As       | As       | As       |  |
| 3   | JUMANA THASNEEM.K | Ju                 | Ju       | Ju       | Ju       | Ju       | Ju       | Ju       | Ju       | Ju       | Ju       |  |
| 4   | MURSHIDA C        | Murshida           | Murshida | Murshida | Murshida | Murshida | Murshida | Murshida | Murshida | Murshida | Murshida |  |
| 5   | NAISHA T          | N                  | N        | N        | N        | N        | N        | N        | N        | N        | N        |  |
| 6   | NAILA BEEGAM T    | N                  | N        | N        | N        | N        | N        | N        | N        | N        | N        |  |
| 7   | RISNA MOL V.P     | Risna              | Risna    | Risna    | Risna    | Risna    | Risna    | Risna    | Risna    | Risna    | Risna    |  |
| 8   | SAHILA RAJIBA V P | Sahila             | Sahila   | Sahila   | Sahila   | Sahila   | Sahila   | Sahila   | Sahila   | Sahila   | Sahila   |  |
| 9   | SUHAILA P P       | Su                 | Su       | Su       | Su       | Su       | Su       | Su       | Su       | Su       | Su       |  |
| 10  | IRFANA            | I                  | I        | I        | I        | I        | I        | I        | I        | I        | I        |  |
| 11  | SHAHILA FAHEEMA   | Shahila            | Shahila  | Shahila  | Shahila  | Shahila  | Shahila  | Shahila  | Shahila  | Shahila  | Shahila  |  |

Name of the teacher : Akshaya-B

Signature: 

Signature of HOD : 

  
**SHAJID P P**  
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MES KEVEEYAM COLLEGE  
VALANCHERY, PIN 676 552

**HOD**  
Dept of Computer Application  
**MES KEVEEYAM COLLEGE**  
Valanchery, 676552  
Malappuram District



**MES KEVEEYAM COLLEGE, VALANCHERY**  
**DEPARTMENT OF COMPUTER APPLICATIONS**

| SHORT TERM COURSE ON VIRTUALISATION AND CLOUD COMPUTING |                   |                    |          |          |          |          |          |          |          |          |          |          |
|---|-------------------|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| SINO  | STUDENT NAME      | STUDENT ATTENDANCE |          |          |          |          |          |          |          |          |          |          |
|   |                   | 22/10/23           | 23/10/23 | 24/10/23 | 25/10/23 | 26/10/23 | 27/10/23 | 28/10/23 | 29/10/23 | 30/10/23 | 31/10/23 | 01/11/23 |
| 1   | AMRUTHA K V       | Amr                | Amr      | Amr      | Amr      | Amr      | Amr      | Amr      | Amr      | Amr      | Amr      | Amr      |
| 2   | ASWATHY P P       | As                 | As       | As       | As       | As       | As       | As       | As       | As       | As       | As       |
| 3   | JUMANA THASNEEM.K | Ju                 | Ju       | Ju       | Ju       | Ju       | Ju       | Ju       | Ju       | Ju       | Ju       | Ju       |
| 4   | MURSHIDA C        | Mur                | Mur      | Mur      | Mur      | Mur      | Mur      | Mur      | Mur      | Mur      | Mur      | Mur      |
| 5   | NAJISHA T         | Nj                 | Nj       | Nj       | Nj       | Nj       | Nj       | Nj       | Nj       | Nj       | Nj       | Nj       |
| 6   | NAJLA BEEGAM T    | Nj                 | Nj       | Nj       | Nj       | Nj       | Nj       | Nj       | Nj       | Nj       | Nj       | Nj       |
| 7   | RISNA MOL V.P     | Risn               | Risn     | Risn     | Risn     | Risn     | Risn     | Risn     | Risn     | Risn     | Risn     | Risn     |
| 8   | SAHLA RAJIBA V P  | Raj                | Raj      | Raj      | Raj      | Raj      | Raj      | Raj      | Raj      | Raj      | Raj      | Raj      |
| 9   | SUHAILA P P       | As                 | As       | As       | As       | As       | As       | As       | As       | As       | As       | As       |
| 10  | IRFANA            | Ir                 | Ir       | Ir       | Ir       | Ir       | Ir       | Ir       | Ir       | Ir       | Ir       | Ir       |
| 11  | SHAHLA FAHEEMA    | Sahla              | Sahla    | Sahla    | Sahla    | Sahla    | Sahla    | Sahla    | Sahla    | Sahla    | Sahla    | Sahla    |

11/1/23  
Amr As  
As As  
Ju Ju  
Mur Mur  
Nj Nj  
Nj Nj  
Risn Risn  
Raj Raj  
As As  
Ir Ir  
Sahla Sahla

Name of the teacher: Janna.kv

Signature: Janna.kv

HOD Signature: Janna.kv

  
**SHARAD P**  
ASSISTANT PROFESSOR  
IN CHARGE OF PRINCIPAL  
M.E.S KEVEEYAM COLLEGE  
VALANCHERY, PIN 676 552

**HOD**  
Dept of Computer Application  
**MES KEVEEYAM COLLEGE**  
Valanchery, 676552  
Malappuram District

Name: .....

Roll. No: .....



# MES KEVEEYAM COLLEGE VALANCHERY

## CERTIFICATE COURSE EXAMINATION

KVM/CC/BCA/22-23/03

Time : 1.15 Hrs

Maximum Marks: 40

### PART A

Answer all questions

Each question carries 2 marks

1. Define virtualization and explain its significance in modern IT infrastructure.
2. Compare and contrast hardware virtualization with software virtualization. Provide examples of each.
3. What are virtual machines and containers? How do they differ from one another in terms of architecture and use cases?
4. Describe the differences between Type 1 and Type 2 hypervisors. Give examples of each type.
5. Provide a brief overview of VMware and its main features. How does it compare with Hyper-V and VirtualBox?

### PART B

Answer any two questions

Each question carries 10 marks

6. Define cloud computing and list its main characteristics.
7. Compare and contrast public, private, and hybrid cloud deployment models. What are the advantages and disadvantages of each?
8. Explain the differences between IaaS, PaaS, and SaaS cloud service models. Provide examples of each.

### PART C

Answer any one question

Each question carries 10 marks

9. Describe the steps involved in setting up a virtual machine in AWS or Azure. What are the key configurations required?
10. Explain the process of deploying a simple application on a virtual machine. What considerations should be made for application deployment?

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| SHORT TERM COURSE ON VIRTUALISATION AND CLOUD COMPUTING |                   |      |
|---|-------------------|------|
| SI NO   | STUDENT NAME      | MARK |
| 1   | AMRUTHA K V       | 25   |
| 2   | ASWATHY P P       | 32   |
| 3   | JUMANA THASNEEM.K | 15   |
| 4   | MURSHIDA C        | 36   |
| 5   | NAJISHA T         | 25   |
| 6   | NAJLA BEEGAM T    | 39   |
| 7   | RISNA MOL V.P     | 40   |
| 8   | SAHLA RAJIBA V P  | 29   |
| 9   | SUHAILA P P       | 34   |
| 10  | IRFANA            | 39   |
| 11  | SHAHLA FAHEEMA    | 27   |

  
**SHAHEED P P**  
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 Valanchery, 676552  
 Malappuram District



# MES KEVEEYAM COLLEGE VALANCHERY MALAPPURAM | KERALA

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## Certificate

This is to certify that

KVM/CC/22-23/

Murshida C

has successfully completed the certificate course on "Virtualization and Cloud  
Computing" conducted by the Department of Computer Application, MES

Keveeyam College, Valanchery during the period 2022-23.

Kline

CO-ORDINATOR

Har

HEAD OF DEPARTMENT

Vinod

Dr. K.P. VINOD KUMAR  
PRINCIPAL







# MES KEVEEYAM COLLEGE VALANCHERY MALAPPURAM | KERALA

NAAC Accredited with A+ Grade  
[www.meskeveeyamcollege.ac.in](http://www.meskeveeyamcollege.ac.in)

## Certificate

This is to certify that

KVM/CC/22-23/

Najisha T

has successfully completed the certificate course on "Virtualization And Cloud Computing" conducted by the Department of Computer Application, MES

Keveeyam College, Valanchery during the period 2022-23.

Klinee

CO-ORDINATOR

Flor

HEAD OF DEPARTMENT

Kavinod

Dr. K.P. VINOD KUMAR  
PRINCIPAL

