



# SASURIE COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi. Affiliated to Anna University, Chennai

Near NH544, Coimbatore Bypass, Near Vijayamangalam Tollgate, Tirupur 638056

## NAAC DVV DOCUMENTS

### QUALITY INDICATOR FRAME WORK

#### CRITERION - 1

#### CURRICULAR ASPECTS

SUBMITTED BY

# IQAC

INTERNAL QUALITY ASSURANCE CELL

## SASURIE COLLEGE OF ENGINEERING



## 1.2 Academic Flexibility(30)

**1.2.1 Number of Value Added/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)**

**AND**

**1.2.2 Percentage of students enrolled in Value Added/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years**

<b>VAC Title:</b>	<b>Building Information Modeling (BIM) and Electrical Systems</b>				
<b>Resource Person:</b>	Mr.P.Manikandan, Manager, Vi-Microsystems.Pvt.Ltd, Chennai-600096		Dr.Vijaya Rajeswaran, CEO, Vi-Microsystems.Pvt.Ltd, Chennai-600096		
<b>Date of conduct from:</b>	<b>09.08.2021</b>	<b>To:</b>	<b>13.08.2021</b>	<b>Duration:</b>	<b>30 Hours</b>
<b>Organized Department:</b>	<b>ELECTRONICS AND COMMUNICATION ENGINEERING</b>				
<b>Participant Year:</b>	<b>2/3/4</b>	<b>Semester:</b>	<b>ODD</b>	<b>No. of Students Registered:</b>	<b>27</b>
<b>Venue:</b>	Online Gmeet- " <a href="https://meet.google.com/bkj-gvjt-ffb">https://meet.google.com/bkj-gvjt-ffb</a> "				

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**

Ref: SCE / ECE / Students / VAC / 2021 – 2022 / ODD


03.08.2021

**CIRCULAR**

In order to bridge the curricular gap between the Academic Syllabus and Industry requirements, Department of Electronics and Communication Engineering and IQAC of our Institution in association with Vi-Microsystems.Pvt.Ltd, is organizing a Value Added Course (VAC) for the students of II, III and IV year of ECE, EEE, MECH and CIVIL on the title “Building Information Modeling (BIM) and Electrical Systems” from 09.08.2021 to 13.08.2021. At the end of the VAC, course completion certificates will be issued to the eligible participants as per the following norms.

- Students, who are securing more than 70% on total score in the VAC test and secured more than 75% in VAC attendance is eligible to receive the course completion certificate for the VAC attended.

<b>Resource Person Details</b>	<b>Mr.P.Manikandan, Manager, . Vi-Microsystems.Pvt.Ltd, Chennai-600096</b>	<b>Dr.Vijaya Rajeswaran, CEO, Vi-Microsystems.Pvt.Ltd, Chennai-600096</b>
<b>Venue</b>	<b>Online Gmeet –“<a href="https://meet.google.com/bkj-gvjt-ffb">https://meet.google.com/bkj-gvjt-ffb</a>”</b>	

  
HoD/ECE

  
PRINCIPAL

Copy to:

1. Chairman & Secretary for information
2. Principal office
3. IQAC Co-Ordinator
4. Class In charges - II, III & IV-Year ECE, EEE, MECH and CIVIL
5. II, III & IV-Year ECE, EEE, MECH and CIVIL Students
6. ECE, EEE, MECH and CIVIL Notice Board
7. Department File



DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

Ref: SCE / ECE / Students / VAC / 2021 – 2022 / ODD

03.08.2021

**SYLLABUS - VALUE ADDED COURSE**

**“Building Information Modeling (BIM) and Electrical Systems”**  
From 09.08.2021 to 13.08.2021 (5 days)

Duration : 30 Hours


Academic Year : 2021 -2022 / ODD

S.No.	Topics Covered	Duration (In Hours)	Date
1	Introduction to BIM and Electrical Systems	3	09.08.2021
2	BIM Fundamentals	3	09.08.2021
3	BIM Software Tools for Electrical Systems	3	10.08.2021
4	Parametric Modeling for Electrical Components	3	10.08.2021
5	Clash Detection and Coordination	3	11.08.2021
6	Electrical System Design Principles	3	11.08.2021
7	Energy Efficiency and Sustainability in Electrical Systems	3	12.08.2021
8	BIM for Construction Documentation	3	12.08.2021
9	Facilities Management and BIM	3	13.08.2021
10	Case Studies and Real-world Applications	3	13.08.2021
Total Hours		30	-

After successful completion of 30 hours VAC, the assessment test for the VAC titled Building Information Modeling (BIM) and Electrical Systems will be conducted on 13.08.2021.

  
VAC Coordinator

  
HoD/ECE

  
Dr. M. VIJAYAKUMAR ME., Ph.D.,  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 638 056, Tirupur (Dt).



DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

**STUDENTS PARTICIPATION LIST - VALUE ADDED COURSE**

**“Building Information Modeling (BIM) and Electrical Systems”**

From 09.08.2021 to 13.08.2021 (5 days)

Duration : 30 Hours

Academic Year : 2021 -2022 / ODD

S.No.	Reg No.	Name of the Student	Year / Branch
1.	732419106001	FEMEY S	III/ECE
2.	732419106003	MOWNEESH N	III/ECE
3.	732419106004	SARANYA DEVI V	III/ECE
4.	732419106005	UMESH KUMAR S	III/ECE
5.	732419106006	YOGESH S	III/ECE
6.	732419106301	KAVIYA PRIYA G	III/ECE
7.	732419106302	VIVEK S M	III/ECE
8.	732418106004	SABITHA A	IV/ECE
9.	732418106005	SUJITHRA P	IV/ECE
10.	732419105001	AJITH KUMAR S	III/EEE
11.	732419105002	DINESH M	III/EEE
12.	732419105004	NAVEENKUMAR A	III/EEE
13.	732419105005	PRAVEEN KUMAR M	III/EEE
14.	732419103001	PRAKASH V	III/CIVIL
15.	732419103002	VIPIN H	III/CIVIL
16.	732420114301	HARI GANESH B	II/MECH
17.	732420114302	PREMKUMAR Y	II/MECH
18.	732420114301	HARI GANESH B	II/MECH
19.	732420114302	PREMKUMAR Y	II/MECH
20.	732419114001	AMULRAJ P	III/MECH
21.	732419114002	ARUNKUMAR B	III/MECH
22.	732419114003	KAVIKRISHNAN P	III/MECH
23.	732419114004	KISHORE B	III/MECH
24.	732419114006	PAVENDHAR S	III/MECH
25.	732419114007	PRIYADHARSHAN G	III/MECH
26.	732419114008	SELVENTHIRAN S	III/MECH
27.	732419114010	THIRUNAVUKKARASU S	III/MECH

V.   
VAC Coordinator

  
Hod/ECE


**Dr.M.VIJAYAKUMAR** ME., Ph.D.,  
 PRINCIPAL  
 SASURIE COLLEGE OF ENGINEERING,  
 Vijayamangalam - 638 056, Tirupur (Dt).

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### STUDENTS ATTENDANCE LIST - VALUE ADDED COURSE

#### “Building Information Modeling (BIM) and Electrical Systems”

From 09.08.2021 to 13.08.2021(5 days)

Duration : 30 Hours

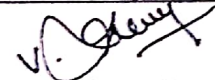
Academic Year : 2021 - 2022/ ODD

S.No	Reg No.	Name of the Student	Year/ Branch	09.08.2021		10.08.2021		11.08.2021		12.08.2021		13.08.2021		No. of Hours Attended
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	
1.	732419106001	FEMEY S	III/ECE	/	/	/	/	/	/	/	/	/	/	30
2.	732419106003	MOWNEESH N	III/ECE	/	/	/	/	/	/	/	/	/	/	30
3.	732419106004	SARANYA DEVI V	III/ECE	/	/	/	/	/	/	/	/	/	/	30
4.	732419106005	UMESH KUMAR S	III/ECE	/	/	/	/	/	/	/	/	/	/	30
5.	732419106006	YOGESH S	III/ECE	/	/	/	/	/	/	/	/	/	/	30
6.	732419106301	KAVIYA PRIYA G	III/ECE	/	/	AB	/	/	/	/	/	/	/	27
7.	732419106302	VIVEK S M	III/ECE	/	/	/	/	/	/	/	/	/	/	30
8.	732418106004	SABITHA A	IV/ECE	/	/	/	/	/	/	/	/	/	/	30
9.	732418106005	SUJITHRA P	IV/ECE	/	/	/	/	/	/	/	/	/	/	30
10.	732419105001	AJITH KUMAR S	III/EEE	/	/	/	/	/	/	AB	/	/	/	27
11.	732419105002	DINESH M	III/EEE	/	/	/	/	/	/	/	/	/	/	30

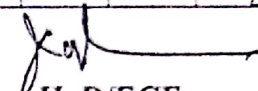


**STUDENTS ATTENDANCE LIST - VALUE ADDED COURSE**

S.No	Reg No.	Name of the Student	Year/ Branch	09.08.2021		10.08.2021		11.08.2021		12.08.2021		13.08.2021		No. of Hours Attended
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	
12.	732419105004	NAVEENKUMAR A	III/EEE	/	/	/	/	/	/	/	/	/	/	30
13.	732419105005	PRAVEEN KUMAR M	III/EEE	/	/	/	/	/	/	/	/	/	/	30
14.	732419103001	PRAKASH V	III/CIVIL	/	/	/	/	AB	/	/	/	/	/	27
15.	732419103002	VIPIN H	III/CIVIL	/	/	/	/	/	/	/	/	/	/	30
16.	732420114301	HARI GANESH B	II/MECH	/	/	/	/	/	/	/	/	/	/	30
17.	732420114302	PREMKUMAR Y	II/MECH	/	/	/	/	/	/	/	/	/	/	30
18.	732420114301	HARI GANESH B	II/MECH	/	/	/	/	/	/	/	/	/	/	30
19.	732420114302	PREMKUMAR Y	II/MECH	/	/	/	/	/	/	/	/	/	/	30
20.	732419114001	AMULRAJ P	III/MECH	/	/	AB	/	/	/	/	/	/	/	27
21.	732419114002	ARUNKUMAR B	III/MECH	/	/	/	/	/	/	/	/	/	/	30
22.	732419114003	KAVIKRISHNAN P	III/MECH	/	/	/	/	/	/	/	/	/	/	30
23.	732419114004	KISHORE B	III/MECH	/	/	/	/	/	/	/	/	/	/	30
24.	732419114006	PAVENDHAR S	III/MECH	/	/	/	/	/	/	/	/	/	/	30
25.	732419114007	PRIYADHARSHAN G	III/MECH	/	/	/	/	/	/	AB	/	/	/	27
26.	732419114008	SELVENTHIRAN S	III/MECH	/	/	/	/	/	/	/	/	/	/	30
27.	732419114010	THIRUNAVUKKARASU S	III/MECH	/	/	/	/	/	/	/	/	/	/	30

  
 VAC Coordinator

  
**Dr. M. VIJAYAKUMAR M.E., Ph.D.**  
 PRINCIPAL  
 SASURIE COLLEGE OF ENGINEERING  
 Vijayamangalam - 633 056 Tirupur (Dt)

  
 HoD/ECE



### Report on Value Added Course

Title:	Building Information Modeling (BIM) and Electrical Systems				
Resource Person:	Mr.P.Manikandan, Manager, Vi-Microsystems.Pvt.Ltd, Chennai-600096		Dr.Vijaya Rajeswaran, CEO, Vi-Microsystems.Pvt.Ltd, Chennai-600096		
Date of conduct from :	09.08.2021	To:	13.08.2021	Duration:	30 Hours
Organized by :	ELECTRONICS AND COMMUNICATION ENGINEERING and IQAC in association with Vi-Microsystems.Pvt.Ltd				
Academic Year:	2021 – 2022		Semester:	ODD	
Participant Year:	II, III, IV Year - ECE, EEE, MECH and CIVIL		No. of Students Participated :	27	
Venue:	Online Gmeet –“ <a href="https://meet.google.com/bkj-gvjt-ffb">https://meet.google.com/bkj-gvjt-ffb</a> ”				

### Outcome of Value Added Course (VAC)

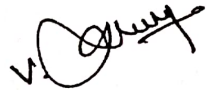
At the end of the Course, Students can be able to

- Explain the fundamental concepts of Building Information Modeling (BIM) and its relevance in the construction industry.
- Gain proficiency in using BIM software tools, specifically electrical system modeling, Revit.
- Create parametric models for various electrical components.
- Generate accurate and comprehensive construction documents from BIM models.
- Development of problem-solving skills, especially in identifying and resolving clashes, conflicts, and challenges that may arise in the integration of BIM and electrical systems.

### Assessment Process

- Students, who are securing **more than 70% on total score in the VAC test** and secured more than 75% in VAC attendance is eligible to receive the course completion certificate for the VAC attended
- Total Score = (0.5 \*Attendance in VAC out of 100 percentage + 0.5 \*Test mark in VAC out of 100 marks)

No. of students successfully completed the VAC course is 27 Students based on the above assessment process.

  
 VAC Co-ordinator

  
 HoD/ ECE

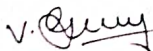
  
 Principal



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**Certificate of Participation**


This is to certify that Mr./Ms ..... MOWNEESH N,III/ECE ..... has successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie College of Engineering and VI-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

Dr.M.VIJAYAKUMAR ME., Ph.D.,  
PRINCIPAL


 SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 633 056, Tirupur (Dt).




DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**Certificate of Participation**

This is to certify that Mr./Ms ..... KAVIYA PRIYA G,III/ECE ..... has  
successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical  
Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of  
Sasurie College of Engineering and Vi-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

  
Dr.M.VIJAYAKUMAR ME., Ph.D.,  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 633 056, Tirupur (Dt)

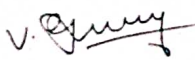





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**Certificate of Participation**

This is to certify that Mr./Ms ..... **SUJITHRA P,IV/ECE** ..... has successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie College of Engineering and VI-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

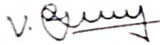
  
**Dr.M.VIJAYAKUMAR** ME., Ph.D.,  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 638 058, Tirupur (Dt).




DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**Certificate of Participation**

This is to certify that Mr./Ms ..... SABITHA A,IV/ECE ..... has  
successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical  
Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of  
Sasurie College of Engineering and Vi-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

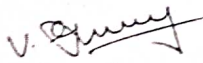
 Dr.M.VIJAYAKUMAR ME., Ph.D.,  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 638 056, Tirupur (Dt).



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING


Certificate of Participation

This is to certify that Mr./Ms ..... AJITH KUMAR S.III/EEE ..... has successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie College of Engineering and VI-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

 Dr.M.VIJAYAKUMAR ME., Ph.D.,  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 633 056, Tirupur (Dt).

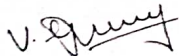





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING


**Certificate of Participation**

This is to certify that Mr./Ms ..... **DINESH M,III/EEE** ..... has successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie College of Engineering and VI-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

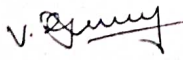
  
**Dr.M.VIJAYAKUMAR** M.E., Ph.D.,  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 638 056, Tirupur (Dt).





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**Certificate of Participation**

This is to certify that Mr./Ms ..... **PREMKUMAR Y,II/MECH** ..... has successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie College of Engineering and VI-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

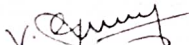
 **Dr.M.VIJAYAKUMAR** ME., Ph.D.,  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 633 056, Tirupur (Dt).



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**Certificate of Participation**

This is to certify that Mr./Ms ..... **IIARI GANESH B,II/MECH** ..... has successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie College of Engineering and VI-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal



 **Dr.M.VIJAYAKUMAR** ME., Ph.D.  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 633 056, Tirupur (Dt).

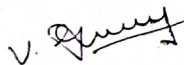





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Certificate of Participation

This is to certify that Mr./Ms ..... KISHORE B.III/MECH ..... has successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie College of Engineering and VI-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

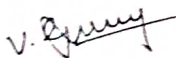
  
Dr.M.VIJAYAKUMAR ME., Ph.D.,  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 633 056, Tirupur (Dt).





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING


Certificate of Participation

This is to certify that Mr./Ms ..... PAVENDHAR S,III/MECH ..... has  
successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical  
Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of  
Sasurie College of Engineering and VI-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

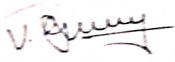
  
Dr.M.VIJAYAKUMAR ME., Ph.D.  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 633 058, Tirupur (Dt).




DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



Certificate of Participation

This is to certify that Mr./Ms ..... PRAKASH V.III/CIVIL ..... has successfully completed the Value Added Course titled "Building Information Modeling(BIM) and Electrical Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie College of Engineering and VI-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

  
 **Dr.M.VIJAYAKUMAR** ME., Ph.D.,  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 633 056, Tirupur (Dt).

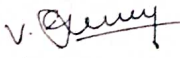




DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING


**Certificate of Participation**

This is to certify that Mr./Ms ..... **VIPIN H,III/CIVIL** ..... has  
successfully completed the Value Added Course titled "Building Information Modelling(BIM) and Electrical  
Systems" Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of  
Sasurie College of Engineering and VI-Microsystems.Pvt.Ltd from 09-08-2021 to 13-08-2021 (5 Days).

  
Co-ordinator

  
Head of the Department

  
Principal

  
**Dr.M.VIJAYAKUMAR** ME., Ph.D.,  
PRINCIPAL  
SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 638 056, Tirupur (Dt).

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

**TEST QUESTION PAPER - VALUE ADDED COURSE**

“Building Information Modeling (BIM) and Electrical Systems”

From 09.08.2021 to 13.08.2021 (5 days)

**Duration : 30 Hours**

**Academic Year : 2021 -2022 / ODD**

**Date of Test : 13.08.2021**

**MULTIPLE CHOICE QUESTIONS (25 X 1 = 25 Marks)**


**Name of the Student:**

**Year/Sem:**

**AU Register Number:**

**Answer all the questions:**

1. What does BIM stand for in the context of construction and design?
  - a) Building Information Management
  - b) Building Information Modeling
  - c) Building Integration Model
  - d) Building Infrastructure Management
  
2. In BIM, what does the term "parametric modeling" refer to?
  - a) Modeling with parameters
  - b) Modeling based on algorithms
  - c) Modeling using pre-defined shapes
  - d) Modeling without constraints
  
3. Which of the following is a key benefit of implementing BIM in construction projects?
  - a) Increased project cost
  - b) Reduced collaboration
  - c) Improved communication and coordination
  - d) Limited data accessibility
  
4. What is the primary purpose of the electrical system in a building?
  - a) Aesthetic enhancement
  - b) Structural support
  - c) Providing power and lighting
  - d) Thermal insulation

  
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- 
5. Which BIM dimension represents the time factor in construction projects?
    - a) 2D
    - b) 3D
    - c) 4D
    - d) 5D
  
  6. What role does Clash Detection play in BIM?
    - a) Identifying conflicts in the design
    - b) Enhancing visualization
    - c) Generating cost estimates
    - d) Managing project schedules
  
  7. In the context of electrical systems, what is the purpose of a circuit breaker?
    - a) Generating electricity
    - b) Distributing power evenly
    - c) Protecting against overloads and short circuits
    - d) Controlling lighting intensity
  
  8. Which software is commonly used for BIM modeling?
    - a) AutoCAD
    - b) Revit
    - c) SketchUp
    - d) SolidWorks
  
  9. What does LOD stand for in BIM?
    - a) Level of Detail
    - b) Length of Design
    - c) Limit of Deviation
    - d) Layer of Documentation
  
  10. In electrical systems, what is the function of a transformer?
    - a) Convert electrical energy to mechanical energy
    - b) Step up or step down voltage
    - c) Control lighting intensity
    - d) Store electrical charge
  
  11. How does BIM contribute to sustainability in construction projects?
    - a) By reducing collaboration
    - b) By optimizing energy efficiency
    - c) By increasing project costs
    - d) By limiting data accessibility
  
  12. What is the significance of the "As-Built" model in BIM?
    - a) It represents the initial design
    - b) It reflects the final, constructed state
    - c) It focuses on future modifications
    - d) It provides cost estimates




13. Which BIM dimension involves the integration of cost-related data?  
a) 3D  
b) 4D  
c) 5D  
d) 6D
14. What is the purpose of grounding in electrical systems?  
a) To provide lighting  
b) To prevent electrical shocks  
c) To enhance aesthetics  
d) To control temperature
15. Which term refers to the process of converting BIM models into construction documents?  
a) Coordination  
b) Clash detection  
c) Model detailing  
d) As-Built modeling
16. What does the acronym MEP stand for in the context of BIM?  
a) Mechanical, Electrical, Plumbing  
b) Modeling Every Project  
c) Mastering Engineering Principles  
d) Model Enhancement Program
17. In BIM, what does the term "IFC" stand for?  
a) Integrated File Collaboration  
b) Industry Foundation Classes  
c) Information Flow Control  
d) International File Consortium
18. What is the primary function of a fuse in an electrical system?  
a) To regulate voltage  
b) To interrupt the flow of current  
c) To store electrical energy  
d) To amplify electrical signals
19. Which dimension of BIM involves the analysis of cost and project schedules?  
a) 3D  
b) 4D  
c) 5D  
d) 6D
20. What does the term "BIM Level of Development" refer to?  
a) The maturity of BIM technology  
b) The level of detail in a BIM model  
c) The stage of construction  
d) The lifespan of a building



- 
21. In electrical systems, what is the purpose of a circuit?
- a) To distribute power
  - b) To protect against surges
  - c) To store electrical energy
  - d) To control lighting
22. How does BIM contribute to improved collaboration in construction projects?
- a) By limiting data sharing
  - b) By enabling real-time communication
  - c) By avoiding clash detection
  - d) By reducing model detailing
23. What is the role of a relay in an electrical system?
- a) To control lighting intensity
  - b) To interrupt the flow of current
  - c) To store electrical energy
  - d) To regulate voltage
24. Which BIM dimension includes facilities management data?
- a) 3D
  - b) 4D
  - c) 5D
  - d) 6D
25. What is the primary purpose of an electrical panel in a building?
- a) To generate electricity
  - b) To distribute power to various circuits
  - c) To control lighting intensity
  - d) To provide thermal insulation



  
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

**TEST QUESTION ANSWER KEY - VALUE ADDED COURSE**

“Building Information Modeling (BIM) and Electrical Systems”

From 09.08.2021 to 13.08.2021.(5 days)

Duration : 30 Hours

Academic-Year : 2021 -2022 / ODD

Date of Test : 13.08.2021

1	b	6	a	11	b	16	a	21	a
2	a	7	c	12	b	17	b	22	c
3	c	8	b	13	c	18	b	23	c
4	c	9	a	14	b	19	c	24	c
5	c	10	b	15	c	20	b	25	b

  
VAC Coordinator

  
Dr. M. VIJAYAKUMAR ME., Ph.D.,  
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**SASURIE**  
COLLEGE OF ENGINEERING  
Approved by AICTE  
Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

TEST QUESTION PAPER - VALUE ADDED COURSE

"Building Information Modeling (BIM) and Electrical Systems"

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Duration : 30 Hours

Academic Year : 2021 -2022 / ODD

Date of Test : 13.08.2021

MULTIPLE CHOICE QUESTIONS (25 X 1 = 25 Marks)

Name of the Student: KAVIYA PRIYA '01 Year/Sem: III / V

AU Register Number: 732419106301

Answer all the questions:

1. What does BIM stand for in the context of construction and design?  
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 c) Improved communication and coordination  
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a) Aesthetic enhancement  
b) Structural support  
 c) Providing power and lighting  
d) Thermal insulation

21  
-----  
25

*Dr. M. Vijayakumar*

*M*  
Dr. M. VIJAYAKUMAR ME., Ph.D.,  
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Vijayamangalam - 638 056, Tirupur (Dt).

5. Which BIM dimension represents the final level in construction projects?

- a) 2D
- b) 3D
- c) 4D
- d) 5D

6. What role does Clash Detection play in BIM?

- a) Identifying conflicts in the design
- b) Enhancing visualization
- c) Generating cost estimates
- d) Managing project schedules

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- b) It reflects the final, constructed state
- c) It focuses on future modifications
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Vijayamangalam - 638 056, Tirupur (Dt).



13. Which BIM dimension involves the integration of cost, schedule and quality?
- a) 3D
  - b) 4D
  - c) 5D
  - d) 6D
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  - d) The lifespan of a building

  
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  - d) To provide thermal insulation



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**ASSESSMENT SHEET - VALUE ADDED COURSE**

**“Building Information Modeling (BIM) and Electrical Systems”**

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Duration : 30 Hours

Academic Year : 2021 - 2022/ ODD

S.No	Reg No.	Name of the Student	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL Score (100) (50% of A + 50% of B)
				No. of Hours Attended	Attendance Score (100) (A)	No. of Correct Answers	MCQ Score (100) (B)	
1.	732419106001	FEMEY S	III/ECE	30	100	21	84	92
2.	732419106003	MOWNEESH N	III/ECE	27	90	19	76	83
3.	732419106004	SARANYA DEVI V	III/ECE	30	100	19	76	88
4.	732419106005	UMESH KUMAR S	III/ECE	30	100	19	76	88
5.	732419106006	YOGESH S	III/ECE	30	100	21	84	92
6.	732419106301	KAVIYA PRIYA G	III/ECE	27	90	21	84	87
7.	732419106302	VIVEK S M	III/ECE	24	80	20	80	80
8.	732418106004	SABITHA A	IV/ECE	27	90	21	84	87
9.	732418106005	SUJITHRA P	IV/ECE	30	100	20	80	90
10.	732419105001	AJITH KUMAR S	III/EEE	27	90	19	76	83
11.	732419105002	DINESH M	III/EEE	30	100	19	76	88
12.	732419105004	NAVEENKUMAR A	III/EEE	24	80	20	80	80

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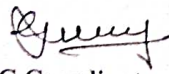
PRINCIPAL



SASURIE COLLEGE OF ENGINEERING,  
Vijayamangalam - 633 055, Tirupur (Dt).

**ASSESSMENT SHEET - VALUE ADDED COURSE**

S.No	Reg No.	Name of the Student	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL Score (100) (50% of A + 50% of B)
				No. of Hours Attended	Attendance Score (100) (A)	No. of Correct Answers	MCQ Score (100) (B)	
13.	732419105005	PRAVEEN KUMAR M	III/EEE	27	90	19	76	85
14.	732419103001	PRAKASH V	III/CIVIL	30	100	20	80	90
15.	732419103002	VIPIN H	III/CIVIL	27	90	19	76	83
16.	732420114301	HARI GANESH B	II/MECH	24	80	21	84	82
17.	732420114302	PREMKUMAR Y	II/MECH	27	90	20	80	85
18.	732420114301	HARI GANESH B	II/MECH	30	100	21	84	92
19.	732420114302	PREMKUMAR Y	II/MECH	27	90	20	80	85
20.	732419114001	AMULRAJ P	III/MECH	30	100	19	76	83
21.	732419114002	ARUNKUMAR B	III/MECH	30	100	20	80	90
22.	732419114003	KAVIKRISHNAN P	III/MECH	30	100	21	84	92
23.	732419114004	KISHORE B	III/MECH	27	90	21	84	87
24.	732419114006	PAVENDHAR S	III/MECH	24	80	20	80	80
25.	732419114007	PRIYADHARSHAN G	III/MECH	27	90	21	84	87
26.	732419114008	SELVENTHIRAN S	III/MECH	30	100	20	80	90
27.	732419114010	THIRUNAVUKKARASU S	III/MECH	24	80	21	84	82

V.   
VAC Coordinator

  
  
 HOD/ECE **Dr.M.VIJAYAKUMAR** ME., Ph.D  
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