Table of Content

Signature Not Verified

Principal.VJEC

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR D.T. KERALA
An ISO 9001: 2008 Certified Institution

EVENT PROPOSAL FORM

1	Event type and Name	Workshop on BIM Tools- Revit MEP, Inventor
2	Institute	BIMLABS
3	Date and time	6th to 9th February 2023 + 1 day
4	No of Days	5
5	Duration	30 hrs
6	Training fee	Rs. 30000/-
7	Participants/audience	S6 ME students (2020-24)
8	Venue	CAD lab
9	Objectives	To acquire knowledge in Revit MEP, Inventor
10	Expected outcomes	Students will be able to apply the knowledge in BIM TOOLS
11	Connected POs/PSOs	PO 1, PO 5, PSO 1, PSO 2
12	Justification for POs/PSO's	The session will impart the knowledge in modern tool of computer aided design and drafting which helps the students in their engineering project work
13	Resource requirements	Computers
14	Any other Relevant Information	Nil
15	Responsible Persons	Mr. Appu C Kurian, Dr. Sridharan P, Dr. Jithin E. V
16	Department	Mechanical Engineering

Proposal prepared by

18/01/2023

Dr. Jithin E. V (Assoc. Prof., ME)

Recommended by

Cdr. Raju K K (Retd.) HOD ME

Signature Not Verified

Principal.VJEC

From

Dr. Jithin E. V,

Associate Professor,

Department of Mechanical Engineering,

Vimal Jyothi Engineering College, Chemperi

18-01-2023

To

The Principal,

Vimal Jyothi Engineering College, Chemperi

S6

Sub: Proposal to conduct add-on course for **6th semester B-Tech Mechanical Engineering** students.

Dear Sir,

An add on course is planned to be conducted for **6th semester Mechanical Engineering** students by BIMLABS. The objective of the course is to acquire knowledge in Revit MEP, Inventor.

The training fee for **each batch is Rs. 30,000** for the program. It is requested that necessary action may be initiated at the earliest.

Enclosure:

1. Event proposal form
2. Tentative schedule

Recommended

Yours Sincerely

Dr. Jithin E. V 18/01/2023

06 February 23 to 09 February 23

18/01/2023

Signature Not Verified

Principal.VJEC

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

DEPARTMENT OF MECHANICAL ENGINEERING

Add-on course on

Modelling and Design Using BIM Tools

FOR 6th SEMESTER MECHANICAL ENGINEERING STUDENTS

@CAD lab from 06/02/2023 onwards

Course code: ADME601

Course duration: 5 days (30 hours)

TRAINING INSTITUTE:
BIMLABS

FUNDED AND SPONSORED BY
VIMAL JYOTHI ENGINEERING COLLEGE

Convener: Cdr. Raju K Kuriakose (retd)

Staff Coordinators: Mr. Appu C Kurian, Dr. Sridharan P, Dr. Jithin E. V

MEAD 601- INTRODUCTION TO BIM TOOLS

Syllabus

Module 1
MULTI-DISCIPLINARY COORDINATION
Linking Revit projects & Copy Monitoring
Link/Import Architectural model
Copy/Monitor- Levels & grids
Link/Import AutoCAD file, Visibility Graphics
Coordination Settings & Managing Project Links
Default Coordination Settings
Copy Behaviors and Mapping Behaviors
Add, Remove, Unload and Reload Linked Models
Manage Links Dialog
Tools to Manage Links
Creating MEP Views
Open MEP Project Templates
View templates,View Filter
Graphics Overrides
Filter & Object styles
Coordination settings, coordination review
Manage links
Create floor plans, ceiling plans, 3D, elevations, sections
HEAT LOAD CALCULATION
Space, Zones, Cooling Load calculation
Create and Modify Spaces
Space properties
Viewing and Selecting Spaces
Create and Edit Zones
Viewing and Selecting Zones
Zone Properties
Performing a Heating and Cooling Loads Analysis
Use heating and cooling loads analysis to determine HVAC system requirements and design the systems

Module 2
HVAC MODELLING
HVAC MODELING
Ducts-Rectangular, Round and oval ducts
Routing Preferences
Duct Placeholder
Duct fittings
Duct Accessories
Flex Duct
Convert to flex duct
HVAC settings
Mechanical equipment
Placing Air terminals
Create systems(duct system)
Duct Sizing Using Mcquay Duct Sizer
Supply Air System and Return Air system
System Browser
Edit Duct s/m
System Tools
Duct insulation
Duct Lining
Justification
Cap open ends
ASSESSMENT
HVAC DOCUMENTATION
Preparation of HVAC Layouts & Schedules
Dimensions and tag
Space Schedule
Air Terminal Schedule
Duct Schedule,Duct Fittings Schedule
Sheets

Module 3
PLUMBING MODELLING
PLUMBING SYSTEMS MODELLING
Introduction to plumbing
View templates
Settings
Different types of pipe
Routing preferences
Pipe fittings and accessories
Pipe place holder
Convert placeholder
Parallel pipes
Flex pipe
Plumping fixture
Create system
Domestic cold water system and Domestic hot water system
Sanitary system
Connectors
System inspector
ASSESSMENT
PLUMBING DOCUMENTATION
Domestic cold water,domestic hot water,Sanitary layouts
Pipe Schedule,Pipe Fittings Schedule
Plumbing Fixtures Schedule
Sheets

Module 4
ELECTRICAL SYSTEMS MODELLING
LIGHTING AND POWER SYSTEMS
Introduction to Electrical Systems
Electrical Templates & units
Electrical settings
Electrical Lighting Analysis,Dialux,Relux
Illumination
Electrical fixture Properties

Signature Not Verified

Principal.VJEC

Placing Lighting fixture
Ceiling and wall based Lights
Placing switches, Receptacles
Conduits
Routing preferences
Conduit Fittings
Parallel conduits
Cable tray and fittings
Create switch system
Create Power system
System tools
Convert to wires
Shared parameters
Electrical connectors
Legend
ASSESSMENT
ELECTRICAL DOCUMENTATION
Panel Schedule
Conduit Schedule
Conduit Fittings Schedule
Lighting Fixture Schedule
Sheets

Module 5
MECHANICAL 3D MODELING USING INVENTOR
Introduction to Inventor
Parametric modeling with Inventor
BIM Families in Inventor
Export to Revit

VIMAL JYOTHI
ENGINEERING COLLEGE
Affiliated to APJ Abdul Kalam Technological University & Kannur University | Approved by AICTE
Under the Archdiocese of Thalassery

DEPARTMENT OF MECHANICAL ENGINEERING
VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

MEAD601: INTRODUCTION TO BIM TOOLS CO-PO-PSO MAPPING

Course outcomes:

CO1: Students will be able to create, modify, and edit building spaces in Autodesk Revit to perform heating and cooling load analysis and determine HVAC system requirements. They will be able to design an HVAC system that meets industry standards and satisfies the building's requirements.
CO2: Students will be able to design ducts, duct fittings, air terminals, and air supply systems using HVAC modeling tools in Autodesk Revit. They will be able to ensure that the HVAC system is efficient, effective, and meets industry standards.
CO3: Students will be able to create, modify, and edit plumbing and electrical systems in a building using Autodesk Revit. They will be able to inspect these systems for errors and ensure that they meet the building's requirements and industry standards.
CO4: Students will be able to develop proficiency in mechanical three-dimensional modeling using parametric modeling tools in Autodesk Inventor. They will be able to use these tools to create complex mechanical models that are efficient, accurate, and meet industry standards.

PO2, PO3, PO5, PO10, PSO1, PSO2

CO/POs	PO2	PO3	PO5	PO10
CO1	3			
CO2		3		
CO3			3	
CO4				3

CO/POs	PSO1	PSO2
CO1	3	3
CO2	3	3
CO3	3	3
CO4	3	3

CO: PO Mapping:
Justification:
CO1:PO2 - Creating, modifying, and designing HVAC systems requires an understanding of fundamental principles of mathematics, science, and engineering to ensure that the systems meet industry standards and building requirements.
CO2:PO3 - Design and conduct experiments, as well as to analyze and interpret data. Justification: Designing HVAC systems requires experimentation, analysis, and interpretation of data to ensure that the systems are efficient, effective, and meet industry standards.
CO3:PO5 - Creating, modifying, and inspecting plumbing and electrical systems requires an understanding of first principles of mathematics, natural sciences, and engineering sciences to ensure that the systems meet industry standards and building requirements.

Signature Not Verified
Principal.VJEC

CO4:PO10 - Developing proficiency in mechanical three-dimensional modeling using parametric modeling tools requires the application of appropriate techniques and resources, as well as an understanding of the limitations of these tools, to create complex mechanical models that meet industry standards.

CO: PSO Mapping:

Justification:

PSO1: An ability to use computer aided modeling and simulation tools to provide solutions to mechanical engineering problems.

Mapping with CO1: The ability to use Autodesk Revit to perform heating and cooling load analysis, and determine HVAC system requirements, involves the use of computer-aided modeling and simulation tools. Thus, CO1 aligns with PSO1 as it focuses on utilizing computer-aided modeling tools for HVAC design.
Mapping with CO2: Designing ducts, duct fittings, air terminals, and air supply systems requires the use of computer-aided modeling tools to ensure that the HVAC system is efficient and effective. Therefore, CO2 aligns with PSO1 as it emphasizes the use of simulation tools for designing HVAC systems.
Mapping with CO3: Creating, modifying, and inspecting plumbing and electrical systems using Autodesk Revit involves the use of computer-aided modeling tools for simulation and analysis. Thus, CO3 aligns with PSO1 as it highlights the use of computer-aided tools for the inspection of building systems.
Mapping with CO4: Developing proficiency in mechanical three-dimensional modeling using parametric modeling tools in Autodesk Inventor requires the use of computer-aided modeling and simulation tools. Therefore, CO4 aligns with PSO1 as it emphasizes the use of computer-aided tools for mechanical modeling.

PSO2: Ability to develop and implement a process in a well-planned manner leading to a demonstrable product.

- **Mapping with CO1:** The design of HVAC systems involves the development of a well-planned process that leads to a demonstrable product, i.e., an HVAC system that meets the building's requirements. Therefore, CO1 aligns with PSO2 as it highlights the importance of a well-planned process in HVAC design.
- **Mapping with CO2:** The design of ducts, duct fittings, air terminals, and air supply systems involves the development of a well-planned process that leads to a demonstrable product, i.e., an efficient and effective HVAC system. Thus, CO2 aligns with PSO2 as it emphasizes the importance of a well-planned process in HVAC system design.
- **Mapping with CO3:** The creation, modification, and inspection of plumbing and electrical systems require the development of a well-planned process that leads to a demonstrable product, i.e., systems that meet the building's requirements and industry standards. Thus, CO3 aligns with PSO2 as it highlights the importance of a well-planned process in building system design.
- **Mapping with CO4:** The development of mechanical three-dimensional models using parametric modeling tools in Autodesk Inventor involves the development of a well-planned process that leads to a demonstrable product, i.e., accurate and efficient mechanical models. Therefore, CO4 aligns with PSO2 as it emphasizes the importance of a well-planned process in mechanical modeling.

Signature Not Verified
Principal.VJEC

S6 ME Add-on course- Attendance- 06/02/2023-Monday							
Univ Reg No	Name	1st hour	2nd hour	3rd hour	4th hour	5th hour	6th hour
VML20ME001	ABDUL RASHEED	P	P	P	P	P	P
VML20ME002	ABHINAV K	P	P	P	P	P	P
VML20ME003	ABHINAV NOYAL	P	P	P	P	P	P
VML20ME004	ABHINAV RAJESH	P	P	P	P	P	P
VML20ME005	ABHIRAM RAJU RADHAKRISHNAN	P	P	P	P	P	P
VML20ME006	ABIN BOBAN	P	P	P	P	P	P
VML20ME007	ADARSH BENNY	P	P	P	P	P	P
VML20ME008	ADARSH K	P	P	P	P	P	P
VML20ME009	ADARSH M S	P	P	P	P	P	P
VML20ME010	ADIL P	P	P	P	P	P	P
VML20ME011	ADITHYA MADHU	P	P	P	P	P	P
VML20ME012	AKHIL RAFEEQUE	P	P	P	P	P	P
VML20ME013	AKSHAY C	P	P	P	P	P	P
VML20ME014	ALBIN C S	P	P	P	P	P	P
VML20ME015	ALEN JOSE	P	P	P	P	P	P
VML20ME016	AMITH. P	P	P	P	P	P	P
VML20ME017	ANAND THOMAS	P	P	P	P	P	P
VML20ME019	ANUSREE P. NAIR	P	P	P	P	P	P
VML20ME020	ARJUN MANOJ	P	P	P	P	P	P
VML20ME021	ASHIN SABU	P	P	P	P	P	P
VML20ME022	AVIRADH R N	P	P	P	P	P	P
VML20ME023	BIJAY BABU	A	A	A	A	A	A
VML20ME024	C ABHINAV	P	P	P	P	P	P
VML20ME026	GEORGEKUTTI PUTHUSSERIL	A	A	A	A	A	A
VML20ME027	HENIL K	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

VML20ME028	HRIDWAITH N	P	P	P	P	P	P
VML20ME029	JAYAGOVIND K	P	P	P	P	P	P
VML20ME030	JITHIN DAS C	P	P	P	P	P	P
VML20ME031	JITHUMON JOHNSON	P	P	P	P	P	P
VML20ME035	MUHAMMED AJMAL K P	A	A	A	A	A	A
VML20ME036	MUHAMMED RASHID U A	P	P	P	P	P	P
VML20ME037	NABIL P P	P	P	P	P	P	P
VML20ME038	NAZIL ARSH	P	P	P	P	P	P
VML20ME039	NIRMAL DEV P	P	P	P	P	P	P
VML20ME040	NIRMAL THOMAS	P	P	P	P	P	P
VML20ME041	PRAGUL C	P	P	P	P	P	P
VML20ME042	RIJIN S NAMBIAR	P	P	P	P	P	P
VML20ME043	RINTO KA	P	P	P	P	P	P
VML20ME044	SALVIN JOSY	P	P	P	P	P	P
VML20ME045	SATHUIC SIVAN	A	A	A	A	A	A
VML20ME046	SHARON HARI K	P	P	P	P	P	P
VML20ME047	SHARON SCARIA	P	P	P	P	P	P
VML20ME048	SOORAJ P V	P	P	P	P	P	P
VML20ME049	SRAVAN KRISHNA	A	A	A	A	A	A
VML20ME050	SREERAG K P	P	P	P	P	P	P
VML20ME051	SRIKIRAN C M	P	P	P	P	P	P
VML20ME052	SRINAND S	P	P	P	P	P	P
VML20ME053	THOMSON THOMAS	P	P	P	P	P	P
VML20ME054	TINU GEORGE	P	P	P	P	P	P
VML20ME055	VAISHNAV P V	P	P	P	P	P	P
VML20ME056	VIPIN I V	P	P	P	P	P	P
VML20ME057	VISHNU VIJAYAN	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

VML20ME058	VISHNU VIJAYAN K	P	P	P	P	P	P
VML20ME059	VYSHNAV R	P	P	P	P	P	P
VML20ME061	YAHYA MAHMOOD	P	P	P	P	P	P
LVML20ME062	JEEVAN RAJ	P	P	P	P	P	P
LVML20ME064	SANJAY M K	A	A	A	A	A	A
LVML20ME065	VAISHAKH.K	P	P	P	P	P	P
LVML20ME063	JISHNU SURENDRAN	A	A	A	A	A	A

Signature Not Verified

Principal.VJEC

S6 ME Add-on course- Attendance- 07/02/2023-Tuesday							
Univ Reg No	Name	1st hour	2nd hour	3rd hour	4th hour	5th hour	6th hour
VML20ME001	ABDUL RASHEED	P	P	P	P	P	P
VML20ME002	ABHINAV K	P	P	p	p	p	p
VML20ME003	ABHINAV NOYAL	P	P	p	p	p	p
VML20ME004	ABHINAV RAJESH	P	P	p	p	p	p
VML20ME005	ABHIRAM RAJU RADHAKRISHNAN	P	P	p	p	p	p
VML20ME006	ABIN BOBAN	A	A	A	A	A	A
VML20ME007	ADARSH BENNY	P	P	P	P	P	P
VML20ME008	ADARSH K	P	P	P	P	P	P
VML20ME009	ADARSH M S	P	P	P	P	P	P
VML20ME010	ADIL P	P	P	P	P	P	P
VML20ME011	ADITHYA MADHU	P	P	P	P	P	P
VML20ME012	AKHIL RAFEEQUE	P	P	P	P	P	P
VML20ME013	AKSHAY C	A	A	A	A	A	A
VML20ME014	ALBIN C S	A	A	A	A	A	A
VML20ME015	ALEN JOSE	P	P	P	A	A	A
VML20ME016	AMITH. P	P	P	P	P	P	P
VML20ME017	ANAND THOMAS	P	P	P	P	P	P
VML20ME019	ANUSREE P. NAIR	P	P	P	P	P	P
VML20ME020	ARJUN MANOJ	P	P	P	P	P	P
VML20ME021	ASHIN SABU	P	P	P	P	P	P
VML20ME022	AVIRADH R N	P	P	P	P	P	P
VML20ME023	BIJAY BABU	A	A	P	P	P	P
VML20ME024	C ABHINAV	P	P	P	P	P	P
VML20ME026	GEORGEKUTTI PUTHUSSERIL	P	P	P	P	P	P
VML20ME027	HENIL K	P	P	P	P	P	P

VML20ME028	HRIDWAITH N	P	P	P	P	P	P
VML20ME029	JAYAGOVIND K	P	P	P	P	P	P
VML20ME030	JITHIN DAS C	P	P	P	P	P	P
VML20ME031	JITHUMON JOHNSON	P	P	P	P	P	P
VML20ME035	MUHAMMED AJMAL K P	P	P	P	P	P	P
VML20ME036	MUHAMMED RASHID U A	P	P	P	P	P	P
VML20ME037	NABIL P P	P	P	P	P	P	P
VML20ME038	NAZIL ARSH	P	P	P	P	P	P
VML20ME039	NIRMAL DEV P	P	P	P	P	P	P
VML20ME040	NIRMAL THOMAS	P	P	P	P	P	P
VML20ME041	PRAGUL C	P	P	P	P	P	P
VML20ME042	RIJIN S NAMBIAR	P	P	P	P	P	P
VML20ME043	RINTO KA	A	A	A	A	A	A
VML20ME044	SALVIN JOSY	P	P	P	P	P	P
VML20ME045	SATHUIC SIVAN	P	P	P	P	P	P
VML20ME046	SHARON HARI K	A	A	A	A	A	A
VML20ME047	SHARON SCARIA	P	P	P	P	P	P
VML20ME048	SOORAJ P V	P	P	P	P	P	P
VML20ME049	SRAVAN KRISHNA	P	P	P	P	P	P
VML20ME050	SREERAG K P	P	P	P	P	P	P
VML20ME051	SRIKIRAN C M	P	P	P	P	P	P
VML20ME052	SRINAND S	P	P	P	P	P	P
VML20ME053	THOMSON THOMAS	P	P	P	P	P	P
VML20ME054	TINU GEORGE	P	P	P	P	P	P
VML20ME055	VAISHNAV P V	P	P	P	P	P	P
VML20ME056	VIPIN I V	P	P	P	P	P	P
VML20ME057	VISHNU VIJAYAN	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

VML20ME058	VISHNU VIJAYAN K	P	P	P	P	P	P
VML20ME059	VYSHNAV R	P	P	P	P	P	P
VML20ME061	YAHYA MAHMOOD	P	P	P	P	P	P
LVML20ME062	JEEVAN RAJ	P	P	P	P	P	P
LVML20ME064	SANJAY M K	P	P	P	P	P	P
LVML20ME065	VAISHAKH.K	P	P	P	P	P	P
LVML20ME063	JISHNU SURENDRAN	A	A	A	A	A	A

Signature Not Verified

Principal.VJEC

S6 ME Add-on course- Attendance- 20/03/2023-Monday							
Univ Reg No	Name	1st hour	2nd hour	3rd hour	4th hour	5th hour	6th hour
VML20ME001	ABDUL RASHEED	P	P	P	P	P	P
VML20ME002	ABHINAV K	P	P	P	P	P	P
VML20ME003	ABHINAV NOYAL	P	P	P	P	P	P
VML20ME004	ABHINAV RAJESH	P	P	P	P	P	P
VML20ME005	ABHIRAM RAJU RADHAKRISHNAN	P	P	P	P	P	P
VML20ME006	ABIN BOBAN	P	P	P	P	P	P
VML20ME007	ADARSH BENNY	P	P	P	P	P	P
VML20ME008	ADARSH K	P	P	P	P	P	P
VML20ME009	ADARSH M S	P	P	P	P	P	P
VML20ME010	ADIL P	P	P	P	P	P	P
VML20ME011	ADITHYA MADHU	A	A	A	A	A	A
VML20ME012	AKHIL RAFEEQUE	P	P	P	P	P	P
VML20ME013	AKSHAY C	P	P	P	P	P	P
VML20ME014	ALBIN C S	P	P	P	P	P	P
VML20ME015	ALEN JOSE	P	P	P	P	P	P
VML20ME016	AMITH. P	P	P	P	P	P	P
VML20ME017	ANAND THOMAS	P	P	P	P	P	P
VML20ME019	ANUSREE P. NAIR	P	P	P	P	P	P
VML20ME020	ARJUN MANOJ	P	P	P	P	P	P
VML20ME021	ASHIN SABU	P	P	P	P	P	P
VML20ME022	AVIRADH R N	P	P	P	P	P	P
VML20ME023	BIJAY BABU	P	P	P	P	P	P
VML20ME024	C ABHINAV	P	P	P	P	P	P
VML20ME026	GEORGEKUTTI PUTHUSSERIL	P	P	P	P	P	P
VML20ME027	HENIL K	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

VML20ME028	HRIDWAITH N	P	P	P	P	P	P
VML20ME029	JAYAGOVIND K	A	A	A	A	A	A
VML20ME030	JITHIN DAS C	P	P	P	P	P	P
VML20ME031	JITHUMON JOHNSON	P	P	P	P	P	P
VML20ME035	MUHAMMED AJMAL K P	A	A	A	A	A	A
VML20ME036	MUHAMMED RASHID U A	P	P	P	P	P	P
VML20ME037	NABIL P P	P	P	P	P	P	P
VML20ME038	NAZIL ARSH	P	P	P	P	P	P
VML20ME039	NIRMAL DEV P	P	P	P	P	P	P
VML20ME040	NIRMAL THOMAS	P	P	P	P	P	P
VML20ME041	PRAGUL C	P	P	P	P	P	P
VML20ME042	RIJIN S NAMBIAR	P	P	P	P	P	P
VML20ME043	RINTO KA	P	P	P	P	P	P
VML20ME044	SALVIN JOSY	P	P	P	P	P	P
VML20ME045	SATHUIC SIVAN	P	P	P	P	P	P
VML20ME046	SHARON HARI K	P	P	P	P	P	P
VML20ME047	SHARON SCARIA	P	P	P	P	P	P
VML20ME048	SOORAJ P V	P	P	P	P	P	P
VML20ME049	SRAVAN KRISHNA	P	P	P	P	P	P
VML20ME050	SREERAG K P	P	P	P	P	P	P
VML20ME051	SRIKIRAN C M	P	P	P	P	P	P
VML20ME052	SRINAND S	P	P	P	P	P	P
VML20ME053	THOMSON THOMAS	P	P	P	P	P	P
VML20ME054	TINU GEORGE	P	P	P	P	P	P
VML20ME055	VAISHNAV P V	P	P	P	P	P	P
VML20ME056	VIPIN I V	A	A	A	A	A	A
VML20ME057	VISHNU VIJAYAN	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

VML20ME058	VISHNU VIJAYAN K	P	P	P	P	P	P
VML20ME059	VYSHNAV R	P	P	P	P	P	P
VML20ME061	YAHYA MAHMOOD	P	P	P	P	P	P
LVML20ME062	JEEVAN RAJ	P	P	P	P	P	P
LVML20ME064	SANJAY M K	P	P	P	P	P	P
LVML20ME065	VAISHAKH.K	P	P	P	P	P	P
LVML20ME063	JISHNU SURENDRAN	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

S6 ME Add-on course- Attendance- 21/03/2023-Tuesday

Univ Reg No	Name	1st hour	2nd hour	3rd hour	4th hour	5th hour	6th hour
VML20ME001	ABDUL RASHEED	A	P	P	P	P	P
VML20ME002	ABHINAV K	p	p	p	p	p	p
VML20ME003	ABHINAV NOYAL	p	p	p	p	p	p
VML20ME004	ABHINAV RAJESH	p	p	p	p	p	p
VML20ME005	ABHIRAM RAJU RADHAKRISHNAN	p	p	p	P	P	P
VML20ME006	ABIN BOBAN	A	A	A	A	A	A
VML20ME007	ADARSH BENNY	P	P	P	P	P	P
VML20ME008	ADARSH K	P	P	P	P	P	P
VML20ME009	ADARSH M S	P	P	P	P	P	P
VML20ME010	ADIL P	P	P	P	P	P	P
VML20ME011	ADITHYA MADHU	A	A	A	A	A	A
VML20ME012	AKHIL RAFEEQUE	A	P	P	P	P	P
VML20ME013	AKSHAY C	P	P	P	P	P	P
VML20ME014	ALBIN C S	A	A	A	A	A	A
VML20ME015	ALEN JOSE	A	A	A	A	A	A
VML20ME016	AMITH. P	P	P	P	P	P	P
VML20ME017	ANAND THOMAS	A	A	A	A	A	A
VML20ME019	ANUSREE P. NAIR	P	P	P	P	P	P
VML20ME020	ARJUN MANOJ	P	P	P	P	P	P
VML20ME021	ASHIN SABU	P	P	P	P	P	P
VML20ME022	AVIRADH R N	P	P	P	P	P	P
VML20ME023	BIJAY BABU	P	P	P	P	P	P
VML20ME024	C ABHINAV	P	P	P	P	P	P
VML20ME026	GEORGEKUTTI PUTHUSSERIL	A	P	P	P	P	P
VML20ME027	HE[illegible]L K	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

VML20ME028	HRI	AITH N	P	P	P	P	P	P
VML20ME029	JAY	OVIND K	P	P	P	P	P	P
VML20ME030	JITH	DAS C	P	P	P	P	P	P
VML20ME031	JITH	ON JOHNSON	P	P	P	P	P	P
VML20ME035	MUI K P	MED AJMAL	A	A	A	A	A	A
VML20ME036	MUI U A	MED RASHID	P	P	P	P	P	P
VML20ME037	NAB	P	P	P	P	P	P	P
VML20ME038	NA	RSH	P	P	P	P	P	P
VML20ME039	NIR	DEV P	P	P	P	P	P	P
VML20ME040	NIR	THOMAS	P	P	P	P	P	P
VML20ME041	PR	C	P	P	P	P	P	P
VML20ME042	RIJI	NAMBIAR	P	P	P	P	P	P
VML20ME043	RIN	KA	P	P	P	P	P	P
VML20ME044	SA	JOSY	P	P	P	P	P	P
VML20ME045	SA	C SIVAN	P	P	P	P	P	P
VML20ME046	SI	HARI K	P	P	P	P	P	P
VML20ME047		SCARIA	P	P	P	P	P	P
VML20ME048	SC	P V	P	P	P	P	P	P
VML20ME049	SI	KRISHNA	A	A	P	P	P	P
VML20ME050		G K P	P	P	P	P	P	P
VML20		N C M	P	P	P	P	P	P
VML20		S	P	P	P	P	P	P
VML20		ON THOMAS	P	P	P	P	P	P
VML20		ORGE	P	P	P	P	P	P
VML20		V P V	P	P	P	P	P	P
VML20			A	A	A	A	A	A
VML20		VIJAYAN	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

VML20ME		VIJAYAN K	P	P	P	P	P	P
VML20ME		AV F	P	P	P	P	P	P
VML20ME		MAHMOOD	P	P	P	P	P	P
LVML20ME		RAJ	P	P	P	P	P	P
LVML20ME		M	P	P	P	P	P	P
LVML20ME		KH.K	P	P	P	P	P	P
LVML20ME		SUPENDRAN	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

'-c course- Attendance- 22/03/2023-Tuesday

Univ Reg		1st hour	2nd hour	3rd hour	4th hour	5th hour	6th hour
VML20ME	RA HEED	P	P	P	P	P	P
VML20ME	V K	p	p	p	p	p	p
VML20ME	V YAL	p	p	p	p	p	p
VML20ME	V JESH	p	p	p	p	p	p
VML20ME	KR HNAN	p	p	p	P	P	P
VML20ME		P	P	P	P	P	P
VML20M	NY	P	P	P	P	P	P
VML20ME		P	P	P	P	P	A
VML20M		P	P	P	P	P	P
VML20M		P	P	P	P	P	P
VML20M	DHU	A	A	A	A	A	A
VML20M	QUE	P	P	P	P	P	P
VML20M		P	P	P	P	P	P
VML20M		P	P	P	A	A	P
VML20M		P	P	P	P	P	P
VML20M		P	P	P	P	P	P
VML20	AS	P	P	P	A	A	P
VML20	AIR	P	P	P	P	P	P
VML20		P	P	P	P	P	P
		P	P	P	P	P	P
		P	P	P	P	P	P
		P	P	P	P	P	P
VML		P	P	P	P	P	P
VML	TI	P	P	P	A	P	P
		P	P	P	P	P	P

Signature Not Verified

Principal,VJEC

	P	P	P	P	P	P
K	P	P	P	P	P	P
	P	P	P	P	P	P
OHNSON	P	P	P	P	P	P
AJMAL K P	A	A	A	A	A	A
RASHID U A	P	P	P	P	P	P
	P	P	P	P	P	P
	P	P	P	P	P	P
	P	P	P	P	P	P
MAS	P	P	P	P	P	P
	P	P	P	P	P	P
IAR	P	P	P	P	P	P
	P	P	P	P	A	P
	P	P	P	P	P	P
N	P	P	P	P	P	P
K	P	P	P	P	P	P
RIA	P	P	P	P	P	P
	P	P	P	P	P	P
NA	P	P	P	P	P	P
	P	P	P	P	P	P
	P	P	P	P	P	P
	P	P	P	P	P	P
S	P	P	P	A	A	P
	P	P	P	P	P	P
	P	P	P	P	P	P
	P	P	P	P	P	P
	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

NK	P	P	P	P	P	P
	P	P	P	P	P	P
OD	P	P	P	P	P	P
	P	P	P	P	P	P
	P	P	P	P	P	P
	P	P	P	P	P	P
DR N	P	P	P	P	P	P

Signature Not Verified

Principal.VJEC

VIMAL JYOTHI
ENGINEERING COLLEGE
Affiliated to APJ Abdul Kalam Technological University & Kannur University | Approved by AICTE
Under the Archdiocese of Thalassery

DEPARTMENT OF MECHANICAL ENGINEERING
VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
ADD-ON COURSE REPORT

INTRODUCTION

An Add-on Course was conducted for 6th semester mechanical engineering students on BIM Tools- Revit MEP, and introduction to Inventor. The event was conducted for 5 days, (30 hours) at the CAD/CAM lab, Mechanical department, as 2 sessions. First session was conducted for two days on 6th February 2023 and 7th February 2023. The second session was conducted for 3 days from 20th March 2023 to 22nd March 2023. The objective of this course was to give hands-on training for 6th semester students on the usage of BIM tools- Revit MEP and Inventor for Mechanical Engineering related applications such as, heat load calculation, HVAC modelling and documentation, plumbing modelling and documentation, electrical systems modelling and documentation.

EVENT SUMMARY

Day 1 (6th Feb): The head of the department, Cdr Raju K Kuriakose (retd) addressed students at the beginning of the add-on course. In his inaugural address, he underlined the significance of developing other skills in addition to curriculum-based learning in the current environment to prepare oneself for a career in engineering.

During day 1, the fundamentals of heat load calculation was discussed. After giving the introduction on heat load calculation, the usage of BIM tools for the calculation of heat load was explained by the trainer. After that, a hands-on training was given to the students on the calculation of heat load using Revit MEP. The outcome of the first day event was the students gained exposure in the usage of BIM tools for the calculation of heat load.

Day 2 (7th Feb): During day 2, the resource person explained the basics of HVAC modelling and HVAC documentation. Various application areas of HVAC modelling and HVAC documentation were discussed. After that, a hands-on training was given for the students on the usage of Revit MEP for HVAC modelling and HVAC documentation. As an outcome of day 2, students acquired basic knowledge on the usage of Revit MEP in HVAC modelling and documentation.

Day 3 (20th Mar): On day 3, plumbing modelling and plumbing documentation was discussed. A basic idea about the plumbing system and the components were given by the resource person. The students were given hands-on training on how to create plumbing models in Revit MEP. They were also trained to do the documentation for plumbing using BIM tools. As the outcome of day 3, the students were able to create basic plumbing models and generate documentation for them.

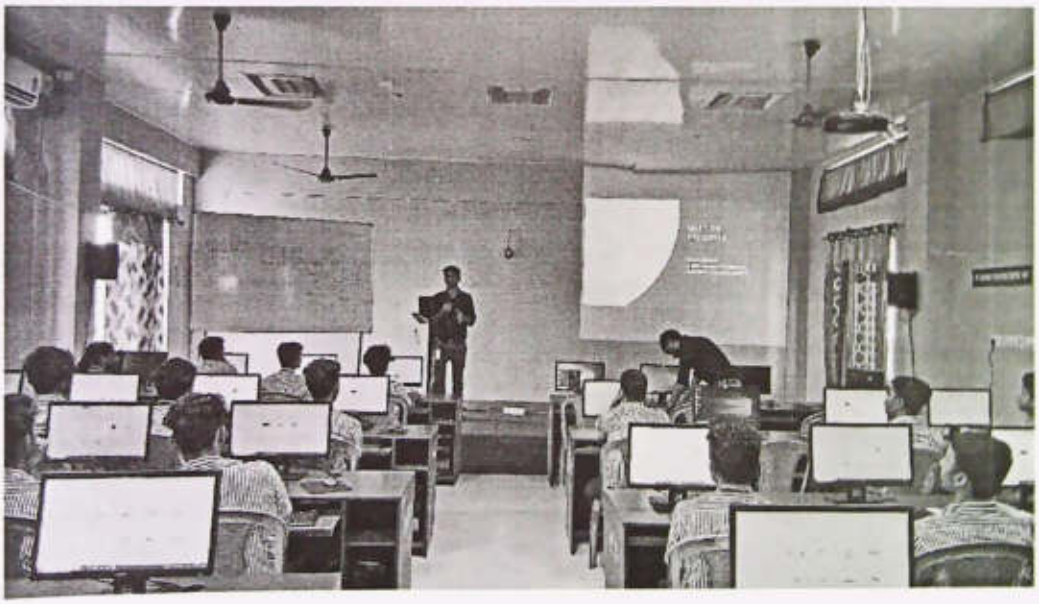
Day 4 (21st Mar): On day 4, fundamentals of electrical systems modelling and electrical documentation were discussed. The students were given hands-on training to electrical systems modelling and documentation using Revit MEP. The outcome of day 4 was the students gained basic knowledge in electrical systems modelling and electrical documentation using Revit MEP.

Signature Not Verified
Principal.VJEC

Day 5 (22nd Mar): On 5th day introduction to 3d modelling using Inventor was discussed by the resource person. The students got opportunity for getting a basic idea in 3d modelling using the tool "inventor" by attending the session.

All 59 students from 6th semester mechanical engineering attended the add-on course conducted by BIMLABS. The interactive sessions handled by the resource persons were useful for the students to get hands-on training on the usage of BIMTOOLS for modelling and documentations for various engineering applications such as heat load calculation, HVAC.

Event photographs:



Signature Not Verified

Principal.VJEC

CONCLUSIONS

5 days add-on course was conducted for 6th semester mechanical engineering students. Students were given hands on training on BIM tools-revit, MEP and inventor. The usage of BIM tools for mechanical engineering related applications such as, heat load calculation, HVAC modelling and documentation, plumbing modelling and documentation, electrical systems modelling and documentation were introduced to students. Post event feedback was taken and impact assessment was performed.

COURSE CO-ORDINATOR:

Dr. Jithin E. V

HEAD OF THE DEPARTMENT:

Cdr Raju K Kuriakose (retd)

Signature Not Verified

Principal.VJEC

Post Event Impact Analysis Report

1	Event type and name	Type: ADD-ON COURSE Name: Introduction to BIM tools
2	Date and time	Date: 06-02-2023, 07-02-2023, 20-03-2023,21-03-2023, 22-03-2023 Time: 09.00 am to 04.00 pm
3	Participants/ audience	S6 Mechanical Engineering Students
4	Venue	CAD/CAM Lab
5	Outcomes of the event	CO1: Students will be able to create, modify, and edit building spaces in Autodesk Revit to perform heating and cooling load analysis and determine HVAC system requirements. They will be able to design an HVAC system that meets industry standards and satisfies the building's requirements. CO2: Students will be able to design ducts, duct fittings, air terminals, and air supply systems using HVAC modeling tools in Autodesk Revit. They will be able to ensure that the HVAC system is efficient, effective, and meets industry standards. CO3: Students will be able to create, modify, and edit plumbing and electrical systems in a building using Autodesk Revit. They will be able to inspect these systems for errors and ensure that they meet the building's requirements and industry standards. CO4: Students will be able to develop proficiency in mechanical three-dimensional modeling using parametric modeling tools in Autodesk Inventor. They will be able to use these tools to create complex mechanical models that are efficient, accurate, and meet industry standards.

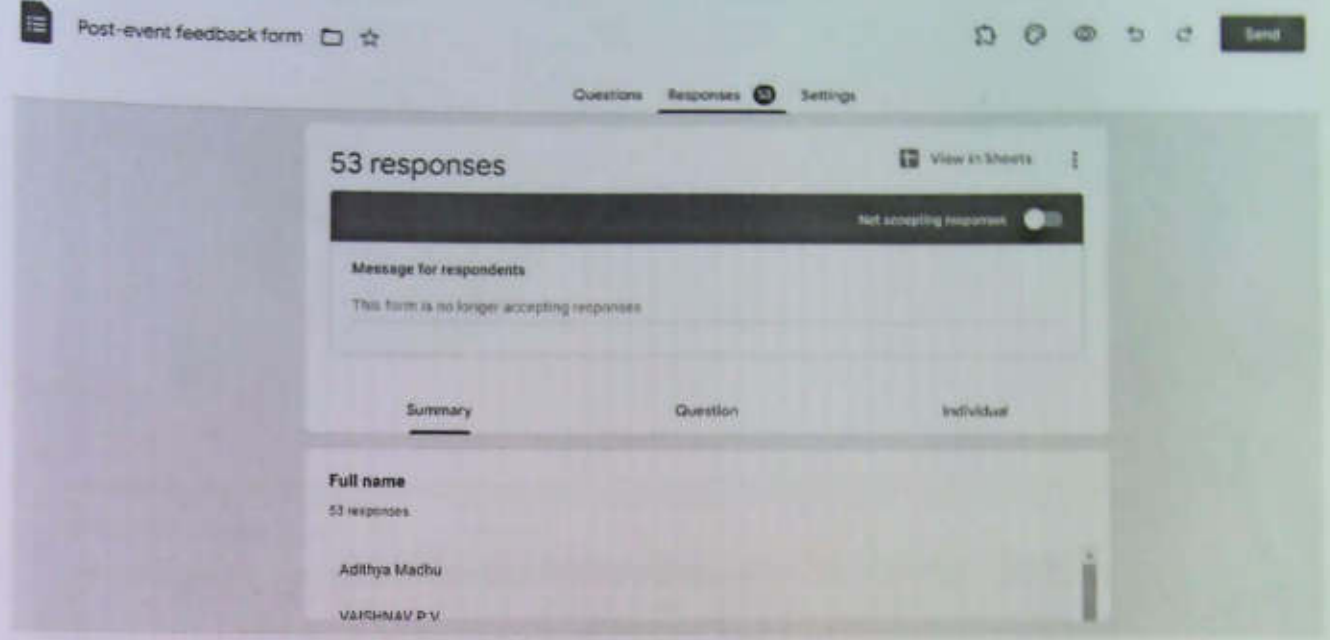
	Attainment level of outcomes	Average level of 3 attained Feedback forms are attached
6	Connected POs/COs	PO2,PO3,PO5,PO10,PSO1,PSO2
7	Any other relevant information	NIL
8	Responsible persons	Report prepared by Dr. Jithin E. V Approved by Cdr. Raju K K (Retd.) HOD ME

Signature Not Verified

Principal.VJEC

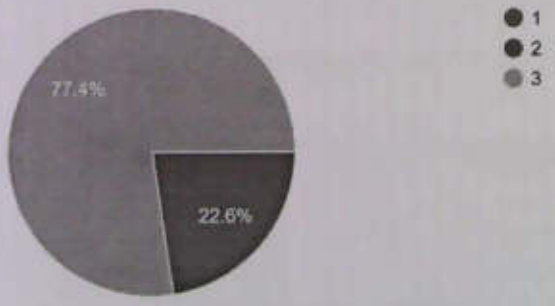
DEPARTMENT OF MECHANICAL ENGINEERING VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

MEAD601: Introduction to BIM Tools- Post-event Impact assessment report



On a scale of 1 to 3 how do you rate the add-on course classes? 1 - Poor 2 - Satisfactory 3 - Excellent

53 responses



Signature Not Verified

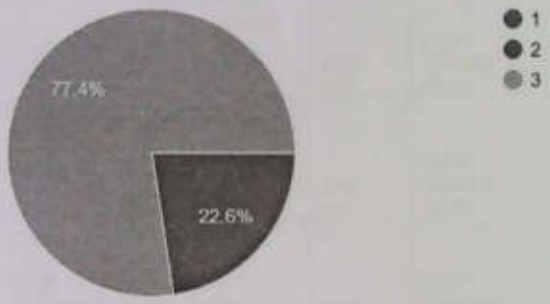
Principal.VJEC

The software's and tools discussed during this event was relevant and met your curriculum gaps. 1 - Poor 2 - Satisfactory 3 - Excellent

53 responses

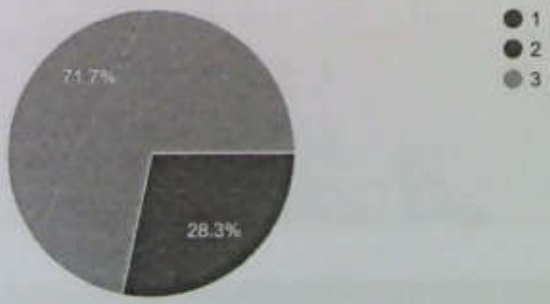
The software tools helped you in designing and developing a demonstrable project, which can be used in mechanical based industrial sectors: 1 - Poor 2 - Satisfactory 3 - Excellent

53 responses



Were you able to perform effectively as an individual and as a team, and follow the: 1 - Poor 2 - Satisfactory 3 - Excellent

53 responses

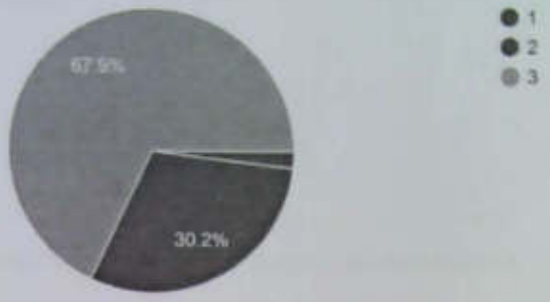


Signature Not Verified

Principal.VJEC

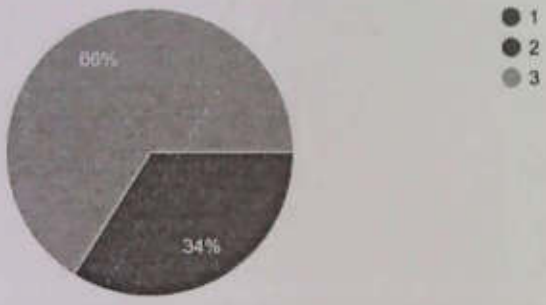
Will the software's included in the add on course able to contribute to the society, modern engineering and global requirements?: 1 - Poor 2 - Satisfactory 3 - Excellent

53 responses



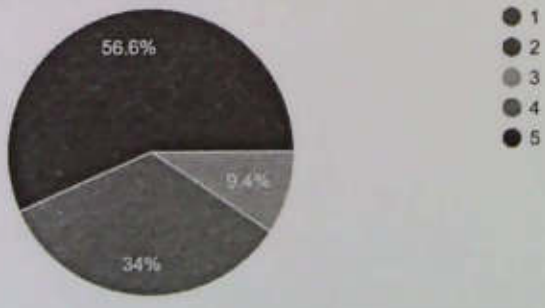
What is your level of learning on Revit & Autodesk inventor after this add-on course? : 1 - Poor 2 - Satisfactory 3 - Excellent

53 responses



On a scale of 5 rate your learning level of BIM tools after this add-on course?

53 responses



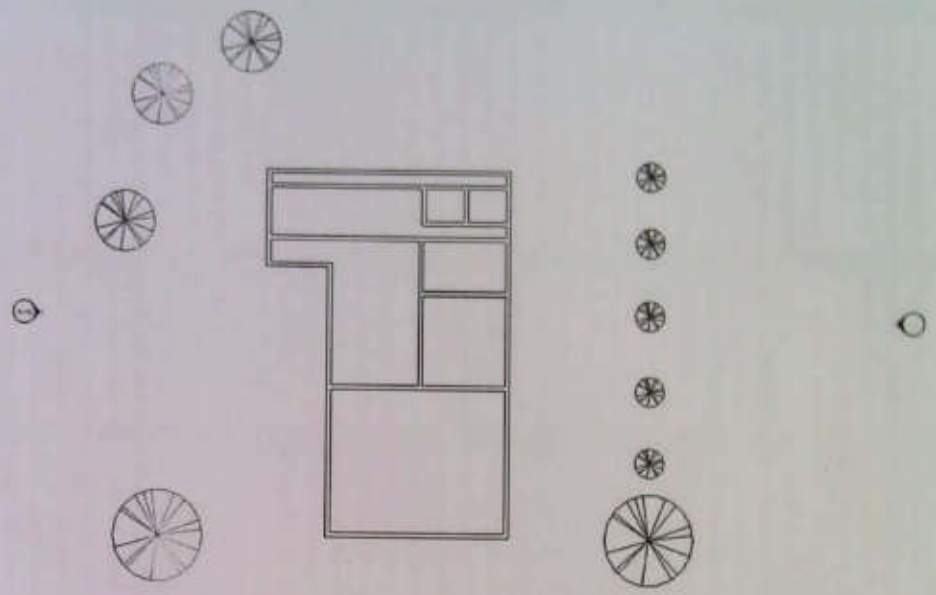
Signature Not Verified

Principal.VJEC

QUESTION

1.CREATE HVAC MODEL, ELECRICAL MODEL AND PLUMPING MODEL WITHIN THE GIVEN FILE.

2. BRING ALL OF THEM INTO SHEET AND CONVERT THEM INTO PDF.



SL.NO	NAME OF STUDENT	HVAC MODELLING MARK=10	ELECTRICAL MODELLING MARK=25	PLUMPING MODELLING MARK=25	SHEET SETTING MARK=25	OVERALL NEATNESS MARK=15	TOTAL MARK=100
1	ALBIN C S	10	25	5	15	10	65
2	SALVIN JOSY	10	25	25	20	15	95
3	JITHUMON JOHNSON	10	25	25	20	15	95
4	ANANDH THOMAS	0	20	5	15	7	47
5	AMJITH P	0	25	25	20	15	70
6	VIPIN I V	0	25	25	20	15	85
7	SATHUIC SIVAN	0	20	5	15	7	47
8	ADARSH K	0	20	5	15	7	47
9	ABDUL RASHEED	10	20	25	20	10	85
10	AKHIL RAFEEQUE	10	20	25	20	10	85
11	NIRMAL DEV	10	20	25	20	10	85
12	SREEKIRAN	10	20	25	20	10	85
			25	25	20	10	85
			25	25	20	10	85
	V R	4	23	23	20	13	86
	THOMAS	5	25	25	20	15	85
	ABU	0	25	25	20	15	85
	N SCARIA	0	25	25	20	15	85
	JIAN	0	25	5	15	10	55
20	NABIL P P	0	25	25	20	15	85
21	SANJAY M K	0	25	25	20	15	85
22	JISHNU SURENDRAN	0	25	25	20	15	85
23	VAISHAK K	0	15		15	10	40
24	JAYAGOVIND K	0	25	25	20	15	85
25	MUHAMMED RASHID U A	0	25	25	23	15	88
26	ADARSH M S	0	25	25	20	15	85
27	AKSHAY C	0	25	25	20	15	85
28	JITHIN DAS	0	25	25	20	15	85
29	VISHNU VIJAYAN	0	25	22	20	15	82
30	HRIDWAITH N	0	25	25	23	15	88
31	ABHINAV C	0	25	25	22	15	87
32	AVIRADH R N	0	25	25	22	15	87
33	VYSHNAV P V	0	25	25	23	15	88
34	ANUSREE P NAIR	0	25	25	23	15	88
35	VISHNU VIJAYAN K	10	25	25	20	15	95
36	ABHINAV K	0	25	15	20	23	83
37	SOORAJ P V	0	25	25	20	15	85
38	ABHINAV RAJESH	10	25	25	20	15	95
39	ADHIL P	10	25	25	20	15	95
40	ABHIRAM RAJU RADHAKRISHNAN	10	25	25	20	15	95
	SRINATH S	0	25	25	20	15	85
	SREERAJ K P	10	25	25	20	15	95
	YAHYA RAHMOOD	0	25	25	20	15	85
	NAZI H	0	25	25	20	15	85
	VA RISHNA	0	25	25	22	15	87
	HE	0	25	25	20	15	85
	ALEN JO	10	25	25	20	15	95
	ARJUN MANOJ	0	25	25	22	15	87

Principal AVJEC

Signature Not Verified

49	THOMSON THOMAS	0		20		5		7		32
50	RINTO K A	0		25		25	20	15		85
51	GEORGEKUTTY	0		25		25	20	15		85
52	ASHIN SABU	10		25		25	20	15		95

Signature Not Verified

Principal.VJEC

CERTIFICATE OF COMPLETION

CONGRATULATIONS!

You have successfully completed an Autodesk® Authorized Training Center® course specifically designed to satisfy your training requirements. Authorized Training Center instructors deliver quality–learning experiences with courses related to Autodesk products utilizing relevant content and comprehensive courseware. Autodesk's vision is to help people imagine, design, and create a better world.

Principal.VJEC

Signature Not Verified

Certificate No. AP702481097328935194732

SOORAJ P V		
NAME		
REVIT MEP		**REVIT MEP 2023**
COURSE TITLE		**PRODUCT**
PREM PRAKASH	**04-MARCH-2023**	**17-24 HOURS**
INSTRUCTOR	**COURSE DATE**	**COURSE DURATION**

BIMLABS ENGINEERING SERVICES PRIVATE LIMITED, KAZHAKKOOTTAM
AUTODESK AUTHORIZED TRAINING CENTER

AUTODESK
Authorized Training Center