



# Indra Ganesan

## COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai  
Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

# NAAC DOCUMENTS

## QUALITY INDICATOR FRAME WORK

### CRITERION – 1

## CURRICULAR ASPECTS

SUBMITTED BY

**IQAC**

INTERNAL QUALITY ASSURANCE CELL

**INDRA GANESAN COLLEGE OF ENGINEERING**





**DEPARTMENT OF MECHANICAL ENGINEERING**

**ACADEMIC YEAR 2018-19 EVEN / ODD SEMESTER**

**1.2 Academic Flexibility (30)**

**1.2.1 Number of Certificate/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)**

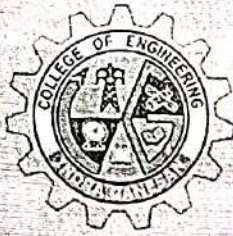
**AND**

**1.2.2 Percentage of students enrolled in Certificate/ 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>Model based system Engineering</b>				
<b>Resource Person:</b>	<b>Mr.Balaji &amp;Mr.Jayakumar Trainer CADD center Trichy</b>				
<b>Date of conduct from:</b>	<b>11.06.2019</b>	<b>To:</b>	<b>15.06.2019</b>	<b>Duration:</b>	<b>30 Hours</b>
<b>Organized Department:</b>	<b>MECHANICAL ENGINEERING</b>				
<b>Participant Year:</b>	<b>Mech II,III,IV Year</b>	<b>Semester:</b>	<b>EVEN</b>	<b>No. of Students Registered:</b>	<b>106</b>
<b>Venue:</b>	<b>Mechanical Seminar Hall</b>				

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Madurai Main Road (NH-45B), Manikandam, Tiruchirapalli- 620 012  
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## Department of Mechanical Engineering

Academic Year 2018-2019 EVEN Semester

Date: 05.06.2019

### DEPARTMENT CIRCULAR

Department of Mechanical Engineering of IGCE association with "CADD Centre, Trichy" is going to organize Value Added Course for all II and III, IV year students on "Model Based Systems Engineering" from 11.06.2019 to 15.06.2019. Certificates will be issued to the eligible participants at the end of the Course. This training is to be provided in our campus.

Resource Person Details	<ol style="list-style-type: none"><li>1. Mr. Balaji Trainer CADD centre Trichy</li><li>2. Mr. Jaya kumar Trainer CADD centre Trichy</li></ol>
Venue	Mechanical Seminar Hall, IGCE

  
HoM MECH

Cc:

- Principal office.
- Class In charges - II, III & IV Year.
- Class Rooms of II, III, IV Year
- Office File
- Notice Board

  
PRINCIPAL

Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal  
Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
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## Value Added Course

### "Model Based Systems Engineering"

#### SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Model-based Systems Engineering and Object-Process Methodology	3	11.06.2019
2	OPM Objects, Processes, and States	3	11.06.2019
3	Relations between Things	3	12.06.2019
4	Creation and consumption of objects	3	12.06.2019
5	Transitions between object states	3	13.06.2019
6	System aspects: Function, structure, and behavior	3	13.06.2019
7	Object-Process Language	3	14.06.2019
8	The System Diagram	3	14.06.2019
9	System purpose, beneficiary, and benefit	3	15.06.2019
10	System function: Main process and its operand	3	15.06.2019
11	Exam	1	15.06.2019
<b>Total Hours (Excluding Assessment)</b>		<b>30</b>	-

  
VAC Coordinator

  
Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal  
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HoD/MECHANICAL



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Principal

Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandam, Trichy-620 012.

**“Value Added Course”**

**“Model Based Systems Engineering”**

**STUDENTS PARTICIPATION LIST**

S.No.	Reg.No	Student's Name	Year/ Branch
1	811217114001	S.Abdul Yasin	II/MECH
2	811217114002	R.Ajithkumar	II/MECH
3	811217114003	S.Anandha Kumar	II/MECH
4	811217114004	M.Ananth	II/MECH
5	811217114005	R.Chellaiah	II/MECH
6	811217114006	C.Devarajan	II/MECH
7	811217114007	S.Dhamotharan	II/MECH
8	811217114008	A.Dhanussh	II/MECH
9	811217114009	C.Dharanidharan	II/MECH
10	811217114010	N.Dharman	II/MECH
11	811217114013	M.Hariharasudhan	II/MECH
12	811217114014	A.Jawagar	II/MECH
13	811217114015	Karthick S	II/MECH
14	811217114016	D.Madhan	II/MECH
15	811217114018	M.Mohammed Faizal	II/MECH
16	811217114019	S.Mohanraj	II/MECH
17	811217114020	R.Munishwaran	II/MECH
18	811217114021	P.Murugan	II/MECH
19	811217114022	P.Ponnar	II/MECH
20	811217114023	M.Prakash	II/MECH
21	811217114025	M.Rajamuni	II/MECH
22	811217114026	La.Ramanathan	II/MECH

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S.No.	Reg.No	Student's Name	Year/ Branch
23	811217114027	G.Sairam	II/MECH
24	811217114028	R.Sankaralingam	II/MECH
25	811217114030	M.Selvakumar	II/MECH
26	811217114031	A.Shameer	II/MECH
27	811217114032	D.Sivakumar	II/MECH
28	811217114033	A.Sriram	II/MECH
29	811217114034	S.Thirumurugan	II/MECH
30	811217114035	A.Vengatesh	II/MECH
31	811217114036	M.Venkatesh	II/MECH
32	811217114037	P.Vinayagamoorthy	II/MECH
33	811217114038	B.Vinothraja	II/MECH
34	811217114039	D.Yugesh	II/MECH
35	811217114301	K.Arun	II/MECH
36	811217114302	K.Santhosh Kumar	II/MECH
37	811217114303	R.Thirumoorthi	II/MECH
38	811217114012	R.Hariharan	II/MECH
39	811217114029	C.Sarathkumar	II/MECH
40	811216114001	Ajmalkhan K	III/MECH
41	811216114002	Amar Praveen D	III/MECH
42	811216114003	Anandaperumal P	III/MECH
43	811216114004	Chinnappan A	III/MECH
44	811216114005	Dayas Kumar M	III/MECH
45	811216114006	Dhinakaran K	III/MECH
46	811216114007	Dhinakaran S	III/MECH
47	811216114008	Dinesh Babu M	III/MECH
48	811216114009	Gobi P	III/MECH

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S.No.	Reg.No	Student's Name	Year/ Branch
49	811216114010	Gopinath N	III/MECH
50	811216114011	Gunaseelan G	III/MECH
51	811216114012	Hariram S	III/MECH
52	811216114013	Harish M	III/MECH
53	811216114014	Karan K	III/MECH
54	811216114015	Karthick A	III/MECH
55	811216114016	Kingsley J	III/MECH
56	811216114017	Kiruthikeyan P	III/MECH
57	811216114018	Krishna Prakash N	III/MECH
58	811216114019	Mahendran A	III/MECH
59	811216114020	Mahendran K	III/MECH
60	811216114021	Nagarajan K	III/MECH
61	811216114022	Nambiyappan K	III/MECH
62	811216114023	Nandha Kumar P	III/MECH
63	811216114024	Naveen Kumar K	III/MECH
64	811216114025	Palanisamy K	III/MECH
65	811216114026	Pulamadan K	III/MECH
66	811216114027	Ramkumar R	III/MECH
67	811216114028	Robert A	III/MECH
68	811216114029	Sasi Kumar S	III/MECH
69	811216114030	Senthil Kumar B	III/MECH
70	811216114031	Subash Salamon S	III/MECH
71	811216114032	Tamilselvan C	III/MECH
72	811216114033	Vairavel A	III/MECH
73	811216114034	Vasudevan A	III/MECH
74	811216114035	Vengatraman V	III/MECH

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S.No.	Reg.No	Student's Name	Year/ Branch
75	811216114036	Vignesh K	III/MECH
76	811216114037	Yanatharan T	III/MECH
77	811216114301	B.Gokul	III/MECH
78	811216114302	S.Hariharan	III/MECH
79	811216114304	J.Karunakaran	III/MECH
80	811216114305	Manoj Kumar K	III/MECH
81	811216114701	S.Vasanth	III/MECH
82	811216114702	V.K.Karthekeyan	III/MECH
83	811215114001	Aravindh M	IV/MECH
84	811215114002	Arunkumar T	IV/MECH
85	811215114004	Chelladurai R	IV/MECH
86	811215114005	Christin Yesudoss A	IV/MECH
87	811215114006	Crown Meshak J	IV/MECH
88	811215114007	Dineshkumar B	IV/MECH
89	811215114008	Dinesh Kumar R	IV/MECH
90	811215114009	Dinesh Kumar V	IV/MECH
91	811215114010	Faizal Dasthahir S.B	IV/MECH
92	811215114011	Gopi P	IV/MECH
93	811215114012	Gunaseelan R	IV/MECH
94	811215114014	Hariharan S	IV/MECH
95	811215114015	Jayaranjan AS	IV/MECH
96	811215114016	Joyal S	IV/MECH
97	811215114017	Karthick M	IV/MECH
98	811215114018	Karthik L	IV/MECH
99	811215114019	Karthikeyan K	IV/MECH
100	811215114020	Karupaiya R	IV/MECH

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S.No.	Reg.No	Student's Name	Year/ Branch
101	811215114021	Kathiravan M	IV/MECH
102	811215114023	Kristen Kennis K	IV/MECH
103	811215114024	Kumaran R	IV/MECH
104	811215114025	Manikandan N	IV/MECH
105	811215114026	Mathiyarasan S	IV/MECH
106	811215114027	Mohamed Burose A	IV/MECH

  
VAC Co ordinator

  
HoD/Mechanical



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**Department of Mechanical Engineering**

Academic Year 2018-2019-Even Semester

**STUDENTS ATTENDANCE SHEET**

**Value Added course**

**“Model Based Systems Engineering”**

  
**Dr. G. Balakrishnan, M.E., Ph.D.**  
 Principal  
 Indra Ganesan College of Engineering  
 IG Valley, Madurai Main Road  
 Manikandam, Trichy-620 012.

S.No.	Reg.No	Student's Name	Year/ Branch	DATE: 11.06.19		DATE: 12.06.19		DATE: 13.06.19		DATE: 14.06.19		DATE: 15.06.19		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
1	811217114001	S.Abdul Yasin	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	S. Abdul
2	811217114002	R.Ajithkumar	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	R. Ajith
3	811217114003	S.Anandha Kumar	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	S. Anandha
4	811217114004	M.Ananth	II MECH	✓	✓	a	✓	✓	✓	✓	✓	✓	✓	9	M. Ananth
5	811217114005	R.Chellaiah	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	R. Chellaiah
6	811217114006	C.Devarajan	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	C. Devarajan
7	811217114007	S.Dhamotharan	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	S. Dhamotharan
8	811217114008	A.Dhanussh	II MECH	✓	✓	a	✓	✓	✓	✓	✓	✓	✓	9	A. Dhanussh
9	811217114009	C.Dharanidharan	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	C. Dharanidharan
10	811217114010	N.Dharman	II MECH	✓	✓	✓	✓	✓	a	✓	✓	✓	✓	9	N. Dharman
11	811217114013	M.Hariharasudhan	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	M. Hariharasudhan
12	811217114014	A.Jawagar	II MECH	✓	✓	a	✓	✓	✓	✓	✓	✓	✓	9	A. Jawagar



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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
13	811217114015	Karthick S	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Karthick
14	811217114016	D.Madhan	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	D.Madhan
15	811217114018	M.Mohammed Faizal	II MECH	✓	✓	✓	✓	a	✓	✓	✓	✓	✓	9	M.Mohammed Faizal
16	811217114019	S.Mohanraj	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	S.Mohanraj
17	811217114020	R.Munishwaran	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	R.Munishwaran
18	811217114021	P.Murugan	II MECH	✓	✓	✓	✓	✓	✓	a	✓	✓	✓	9	P.Murugan
19	811217114022	P.Ponnar	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	P.Ponnar
20	811217114023	M.Prakash	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	a	✓	9	M.Prakash
21	811217114025	M.Rajamuni	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	a	9	M.Rajamuni
22	811217114026	La.Ramanathan	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	La.Ramanathan
23	811217114027	G.Sairam	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	G.Sairam
24	811217114028	R.Sankaralingam	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	R.Sankaralingam
25	811217114030	M.Selvakumar	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	M.Selvakumar
26	811217114031	A.Shameer	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	A.Shameer
27	811217114032	D.Sivakumar	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	a	9	D.Sivakumar
28	811217114033	A.Sriram	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	A.Sriram
29	811217114034	S.Thirumurugan	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	S.Thirumurugan
30	811217114035	A.Vengatesh	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	A.Vengatesh
31	811217114036	M.Venkatesh	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	a	9	M.Venkatesh
32	811217114037	P.Vinayagamoorthy	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	P.Vinayagamoorthy
33	811217114038	B.Vinothraja	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	B.Vinothraja
34	811217114039	D.Yugesh	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	D.Yugesh
35	811217114301	K.Arun	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	a	9	K.Arun

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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
36	811217114302	K.Santhosh Kumar	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	K.Sankar
37	811217114303	R.Thirumoorthi	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	R.Thirumoorthi
38	811217114012	R.Hariharan	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	R.Hariharan
39	811217114029	C.Sarathkumar	II MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	C.Sarathkumar
40	811216114001	Ajmalkhan K	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Ajmalkhan K
41	811216114002	Amar Praveen D	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Amar Praveen D
42	811216114003	Anandaperumal P	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Anandaperumal P
43	811216114004	Chinnappan A	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	09	Chinnappan A
44	811216114005	Dayas Kumar M	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Dayas Kumar M
45	811216114006	Dhinakaran K	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Dhinakaran K
46	811216114007	Dhinakaran S	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Dhinakaran S
47	811216114008	Dinesh Babu M	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Dinesh Babu M
48	811216114009	Gobi P	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Gobi P
49	811216114010	Gopinath N	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Gopinath N
50	811216114011	Gunaseelan G	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Gunaseelan G
51	811216114012	Hariram S	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Hariram S
52	811216114013	Harish M	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Harish M
53	811216114014	Karan K	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Karan K
54	811216114015	Karthick A	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Karthick A
55	811216114016	Kingsley J	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	09	Kingsley J
56	811216114017	Kiruthikeyan P	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Kiruthikeyan P
57	811216114018	Krishna Prakash N	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Krishna Prakash N
58	811216114019	Mahendran A	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Mahendran A

  
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S.No.	Reg.No	Student's Name	Year/ Branch	DATE: 11.06.19		DATE: 12.06.19		DATE: 13.06.19		DATE: 14.06.19		DATE: 15.06.19		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
59	811216114020	Mahendran K	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Mahesh
60	811216114021	Nagarajan K	III/MECH	/	/	/	/	/	/	/	/	/	/	9	Nagarajan
61	811216114022	Nambiyappan K	III/MECH	/	/	/	/	/	/	/	/	/	/	9	Nambiyappan
62	811216114023	Nandha Kumar P	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Nandha Kumar
63	811216114024	Naveen Kumar K	III/MECH	/	/	/	/	/	/	/	/	/	/	9	Naveen Kumar
64	811216114025	Palanisamy K	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Palanisamy
65	811216114026	Pulamadan K	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Pulamadan
66	811216114027	Ramkumar R	III/MECH	/	/	/	/	/	/	/	/	/	/	9	Ramkumar
67	811216114028	Robert A	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Robert A
68	811216114029	Sasi Kumar S	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Sasi Kumar
69	811216114030	Senthil Kumar B	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Senthil Kumar
70	811216114031	Subash Salamon S	III/MECH	/	/	/	/	/	/	/	/	/	/	9	Subash Salamon
71	811216114032	Tamilselvan C	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Tamilselvan
72	811216114033	Vairavel A	III/MECH	/	/	/	/	/	/	/	/	/	/	9	Vairavel
73	811216114034	Vasudevan A	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Vasudevan
74	811216114035	Vengatraman V	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Vengatraman
75	811216114036	Vignesh K	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Vignesh K
76	811216114037	Yanatharan T	III/MECH	/	/	/	/	/	/	/	/	/	/	9	Yanatharan
77	811216114301	B.Gokul	III/MECH	/	/	/	/	/	/	/	/	/	/	10	B.Gokul
78	811216114302	S.Hariharan	III/MECH	/	/	/	/	/	/	/	/	/	/	10	S.Hariharan
79	811216114304	J.Karunakaran	III/MECH	/	/	/	/	/	/	/	/	/	/	10	J.Karunakaran
80	811216114305	Manoj Kumar K	III/MECH	/	/	/	/	/	/	/	/	/	/	10	Manoj Kumar
81	811216114701	S.Vasanth	III/MECH	/	/	/	/	/	/	/	/	/	/	10	S.Vasanth

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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
82	811216114702	V.K.Karthekeyan	III/MECH	/	/	/	/	/	/	/	/	/	/	10	V.K.Karthekeyan
83	811215114001	Aravindh M	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Aravindh M
84	811215114002	Arunkumar T	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Arunkumar T
85	811215114004	Chelladurai R	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Chelladurai R
86	811215114005	Christin Yesudoss A	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Christin Yesudoss A
87	811215114006	Crown Meshak I	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Crown Meshak I
88	811215114007	Dineshkumar B	IV/MECH	/	/	/	/	/	/	/	/	/	/	9	Dineshkumar B
89	811215114008	Dinesh Kumar R	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Dinesh Kumar R
90	811215114009	Dinesh Kumar V	IV/MECH	/	/	/	/	/	/	/	/	/	/	9	Dinesh Kumar V
91	811215114010	Faizal Dasthahir S.B	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Faizal Dasthahir S.B
92	811215114011	Gopi P	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Gopi P
93	811215114012	Gunaseelan R	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Gunaseelan R
94	811215114014	Hariharan S	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Hariharan S
95	811215114015	Jayaranjan AS	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Jayaranjan AS
96	811215114016	Joyal S	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Joyal S
97	811215114017	Karthick M	IV/MECH	/	/	/	/	/	/	/	/	/	/	9	Karthick M
98	811215114018	Karthik L	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Karthik L
99	811215114019	Karthikeyan K	IV/MECH	/	/	/	/	/	/	/	/	/	/	9	Karthikeyan K
100	811215114020	Karupaiya R	IV/MECH	/	/	/	/	/	/	/	/	/	/	9	Karupaiya R
101	811215114021	Kathiravan M	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Kathiravan M
102	811215114023	Kristen Kennis K	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Kristen Kennis K
103	811215114024	Kumaran R	IV/MECH	/	/	/	/	/	/	/	/	/	/	10	Kumaran R
104	811215114025	Manikandan N	IV/MECH	/	/	/	/	/	/	/	/	/	/	9	Manikandan N

  
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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
105	811215114026	Mathiyarasan S	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Mathiyarasan S	
106	811215114027	Mohamed Burose A	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	9	Mohamed Burose A	

  
VAC Coordinator

  
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HoD MECH



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Name of the Student

Year/Sem:

AU Register Number:

## Value Added Course

### “Model Based Systems Engineering”

#### MCQ QUESTIONS (25X4 = 100 Marks)

1. The Unified Modeling Language (UML) has become an effective standard for software modelling. How many different notations does it have?  
a) Three. c) Four.  
b) Six. d) Nine
2. Which model in system modelling depicts the dynamic behaviour of the system ?  
a) Context Model. c) Data Model  
b) Behavioral Model d) Object Model
3. Which model in system modelling depicts the static nature of the system ?  
a) Structural Model c) Context Model  
b) Data Model d) Behavioral Model.
4. Which perspective in system modelling shows the system or data architecture.  
a) Behavioral perspective c) External perspective  
b) Structural perspective d) All of the mentioned
5. Which system model is being depicted by the ATM operations shown below:  
a) Context model c) Behavioral model  
b) Structural model d) Interaction model
6. Activity diagrams are used to model the processing of data.  
a) True c) False  
b) Immobilizing. d) Grounding.

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7. Model-driven engineering is just a theoretical concept. It cannot be converted into a working/executable code.
- a) False  
b) True  
c) Movable jaw.  
d) The vise screw.
8. The UML supports event-based modeling using \_\_\_\_\_
- a) Deployment  
b) State chart  
c) Collaboration  
d) All of the mentioned
9. Which of the following diagram is not supported by UML considering Data-driven modeling ?
- a) Data Flow Diagram (DFD)  
b) Activity  
c) State Chart  
d) Component
10. \_\_\_\_\_ allows us to infer that different members of classes have some common characteristics.
- a) Realization  
b) Aggregation  
c) Generalization  
d) dependency
11. One creates Behavioral models of a system when you are discussing and designing the system architecture.
- a) False.  
b) True  
c) Relative size models  
d) Relative size models
12. \_\_\_\_\_ & \_\_\_\_\_ diagrams of UML represent Interaction modeling.
- a) Class, Object  
b) Use Case, Sequence  
c) Activity, State Chart  
d) All of the mentioned
13. Which level of Entity Relationship Diagram (ERD) models all entities and relationships?
- a) Level 4  
b) Level 3  
c) Level 1  
d) Level 2

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14. \_\_\_\_\_ classes are used to create the interface that the user sees and interacts with as the software is used.
- a) Controller  
b) Boundary  
c) Entity  
d) Business
15. Which of the following statement is incorrect regarding the Class-responsibility-collaborator (CRC) modeling ?
- a) All use-case scenarios (and corresponding use-case diagrams) are organized into categories in CRC modelling  
b) The review leader reads the use-case deliberately  
c) Only developers in the review (of the CRC model) are given a subset of the CRC model index cards  
d) All of the mentioned
16. A data object can encapsulates processes and operation as well.
- a) False  
b) Grinding.  
c) Milling.  
d) True.
17. The two dimensions of spiral model are
- a) diagonal, angular  
b) radial, perpendicular.  
c) radial, angular.  
d) diagonal, perpendicular
18. The Incremental Model is combination of elements of
- a) Build & FIX Model & Waterfall Model  
b) Linear Model & RAD Model.  
c) Waterfall Model & RAD Model  
d) Linear Model & Prototyping Model.
19. Model preferred to create client/server applications is
- a) Concurrent Model  
b) Spiral Model  
c) WINWIN Spiral Model  
d) Incremental Model
20. Spiral model was developed by
- a) Berry Boehm  
b) Victor Bisili  
c) Bev Littlewood.  
d) Roger Pressman.
21. Software evolution does not comprises:

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21. Software evolution does not comprises:
- a) Development activities
  - b) Re-engineering activities.
  - c) Maintenance activities
  - d) Negotiating with client
22. Which technique is applied to ensure the continued evolution of legacy systems ?
- a) Reverse Engineering and Reengineering
  - b) Reengineering
  - c) Reverse Engineering.
  - d) Forward engineering
23. Program modularization and Source code translation are the activities of \_\_\_\_\_
- a) Reengineering
  - b) Reverse Engineering and Reengineering
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24. Reverse engineering is the last activity in a reengineering project.
- a) True
  - b) X nuts.
  - c) False.
  - d) Square nuts.
25. The cost of re-engineering is often significantly less than the costs of developing new software.
- a) True.
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## Value Added Course

### “Model Based Systems Engineering”

#### ANSWER KEY

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

  
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Name of the Student *N. Shanman*

Year/Sem: *II / mech*

AU Register Number: *811217114010*

## Value Added Course

**“Model Based Systems Engineering”**

**MCQ QUESTIONS (25X4 = 100 Marks)**

*20*  
*25*

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  - b) X nuts.
  - c) False.
  - d) Square nuts.
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- a) True.
  - b) False.
  - c) Duplicated.
  - d) Deleted.

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**Department of Mechanical Engineering**  
**Academic Year 2018-2019-Odd Semester**

**STUDENTS ASSESEMENT SHEET**

**Value Added course**

**“Model Based Systems Engineering”**

  
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S.No.	Reg.No	Student's Name	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No. of Hours Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	811217114001	S.Abdul Yasin	II MECH	30	100	20	80	90
2	811217114002	R.Ajithkumar	II MECH	27	90	19	76	83
3	811217114003	S.Anandha Kumar	II MECH	30	100	19	76	88
4	811217114004	M.Ananth	II MECH	30	100	22	88	94
5	811217114005	R.Chellaiah	II MECH	30	100	18	72	86
6	811217114006	C.Devarajan	II MECH	30	100	19	76	88
7	811217114007	S.Dhamotharan	II MECH	30	100	18	72	86
8	811217114008	A.Dhanussh	II MECH	30	100	18	72	86
9	811217114009	C.Dharanidharan	II MECH	30	100	19	76	88
10	811217114010	N.Dharman	II MECH	30	100	20	80	90
11	811217114013	M.Hariharasudhan	II MECH	27	90	20	80	85



# Indra Ganesan

**COLLEGE OF ENGINEERING**  
 Medurall Main Road (NH-45B), Manikandam, Trichirapalli- 620 012  
 Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal

Indra Ganesan College of Engineering  
G Valley, Madurai Main Road

Manikandam, Trichy-620 012.

S.No.	Reg.No	Student's Name	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
12	811217114014	A.Jawagar	II MECH	30	100	20	80	90
13	811217114015	Karthick S	II MECH	30	100	22	88	94
14	811217114016	D.Madhan	II MECH	30	100	18	72	86
15	811217114018	M.Mohammed Faizal	II MECH	30	100	19	76	88
16	811217114019	S.Mohanraj	II MECH	27	90	19	76	83
17	811217114020	R.Munishwaran	II MECH	30	100	20	80	90
18	811217114021	P.Murugan	II MECH	30	100	22	88	94
19	811217114022	P.Ponnar	II MECH	30	100	18	72	86
20	811217114023	M.Prakash	II MECH	30	100	22	88	94
21	811217114025	M.Rajamuni	II MECH	30	100	18	72	86
22	811217114026	La.Ramanathan	II MECH	30	100	22	88	94
23	811217114027	G.Sairam	II MECH	30	100	22	88	94
24	811217114028	R.Sankaralingam	II MECH	30	100	20	80	90
25	811217114030	M.Selvakumar	II MECH	30	100	18	72	86
26	811217114031	A.Shameer	II MECH	30	100	19	76	88
27	811217114032	D.Sivakumar	II MECH	30	100	20	80	90
28	811217114033	A.Sriram	II MECH	30	100	18	72	86
29	811217114034	S.Thirumurugan	II MECH	27	90	18	72	81
30	811217114035	A.Vengatesh	II MECH	30	100	18	72	86
31	811217114036	M.Venkatesh	II MECH	30	100	20	80	90
32	811217114037	P.Vinayamoorthy	II MECH	30	100	20	80	90
33	811217114038	B.Vinothraja	II MECH	30	100	18	72	86



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Dr. G. Balakrishnan, M.E., Ph.D.,  
 Principal

S.No.	Reg.No	Student's Name	Year/ Branch	Attendance Details		VACANCY TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
34	811217114039	D.Yugesh	II MECH	30	100	19	76	88
35	811217114301	K.Arun	II MECH	30	100	18	72	86
36	811217114302	K.Santhosh Kumar	II MECH	30	100	20	80	90
37	811217114303	R.Thirumoorthi	II MECH	30	100	18	72	86
38	811217114012	R.Hariharan	II MECH	27	90	19	76	83
39	811217114029	C.Sarathkumar	II MECH	30	100	22	88	94
40	811216114001	Ajmalkhan K	III/MECH	30	100	18	72	86
41	811216114002	Amar Praveen D	III/MECH	27	90	19	76	83
42	811216114003	Anandaperumal P	III/MECH	30	100	18	72	86
43	811216114004	Chinnappan A	III/MECH	30	100	19	76	88
44	811216114005	Dayas Kumar M	III/MECH	30	100	20	80	90
45	811216114006	Dhinakaran K	III/MECH	30	100	18	72	86
46	811216114007	Dhinakaran S	III/MECH	24	80	19	76	78
47	811216114008	Dinesh Babu M	III/MECH	30	100	22	88	94
48	811216114009	Gobi P	III/MECH	30	100	18	72	86
49	811216114010	Gopinath N	III/MECH	30	100	19	76	88
50	811216114011	Gunaseelan G	III/MECH	27	90	18	72	81
51	811216114012	Hariram S	III/MECH	30	100	19	76	88
52	811216114013	Harish M	III/MECH	30	100	18	72	86
53	811216114014	Karan K	III/MECH	30	100	19	76	88
54	811216114015	Karthick A	III/MECH	30	100	20	80	90
55	811216114016	Kingsley J	III/MECH	30	100	20	80	90



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COLLEGE OF ENGINEERING  
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Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal

Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandan, Trichy-620 012

S.No.	Reg.No	Student's Name	Year/ Branch	Attendance Details		V.A.C.MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
56	811216114017	Kiruthikeyan P	III/MECH	30	100	22	88	94
57	811216114018	Krishna Prakash N	III/MECH	30	100	18	72	86
58	811216114019	Mahendran A	III/MECH	30	100	19	76	88
59	811216114020	Mahendran K	III/MECH	30	100	20	80	90
60	811216114021	Nagarajan K	III/MECH	30	100	18	72	86
61	811216114022	Nambiyappan K	III/MECH	30	100	19	76	88
62	811216114023	Nandha Kumar P	III/MECH	30	100	22	88	94
63	811216114024	Naveen Kumar K	III/MECH	30	100	18	72	86
64	811216114025	Palanisamy K	III/MECH	30	100	18	72	86
65	811216114026	Pulamadan K	III/MECH	30	100	18	72	86
66	811216114027	Ramkumar R	III/MECH	30	100	18	72	86
67	811216114028	Robert A	III/MECH	30	100	19	76	88
68	811216114029	Sasi Kumar S	III/MECH	30	100	20	80	90
69	811216114030	Senthil Kumar B	III/MECH	30	100	20	80	90
70	811216114031	Subash Salamon S	III/MECH	30	100	20	80	90
71	811216114032	Tamilselvan C	III/MECH	27	90	22	88	89
72	811216114033	Vairavel A	III/MECH	30	100	18	72	86
73	811216114034	Vasudevan A'	III/MECH	30	100	19	76	88
74	811216114035	Vengatraman V	III/MECH	30	100	20	80	90
75	811216114036	Vignesh K	III/MECH	30	100	18	72	86
76	811216114037	Yanatharan T	III/MECH	30	100	19	76	88
77	811216114301	B.Gokul	III/MECH	24	80	22	88	84



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Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal

Indra Ganesan College of Engineering

IG Valley, Madurai Main Road

Madurai-620 012

S.No.	Reg.No	Student's Name	Year/ Branch	Attendance Details		MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
78	811216114302	S.Hariharan	III/MECH	30	100	18	72	86
79	811216114304	J.Karunakaran	III/MECH	30	100	18	72	86
80	811216114305	Manoj Kumar K	III/MECH	30	100	18	72	86
81	811216114701	S.Vasanth	III/MECH	30	100	18	72	86
82	811216114702	V.K.Karthekeyan	III/MECH	27	90	18	72	81
83	811215114001	Aravindh M	IV/MECH	30	100	22	88	94
84	811215114002	Arunkumar T	IV/MECH	30	100	20	80	90
85	811215114004	Chelladurai R	IV/MECH	30	100	18	72	86
86	811215114005	Christin Yesudoss A	IV/MECH	30	100	19	76	88
87	811215114006	Crown Meshak J	IV/MECH	30	100	20	80	90
88	811215114007	Dineshkumar B	IV/MECH	30	100	18	72	86
89	811215114008	Dinesh Kumar R	IV/MECH	27	90	18	72	81
90	811215114009	Dinesh Kumar V	IV/MECH	30	100	18	72	86
91	811215114010	Faizal Dasthahir S.B	IV/MECH	30	100	20	80	90
92	811215114011	Gopi P	IV/MECH	30	100	20	80	90
93	811215114012	Gunaseelan R	IV/MECH	30	100	18	72	86
94	811215114014	Hariharan S	IV/MECH	30	100	19	76	88
95	811215114015	Jayaranjan AS	IV/MECH	30	100	18	72	86
96	811215114016	Joyal S	IV/MECH	30	100	20	80	90
97	811215114017	Karthick M	IV/MECH	30	100	18	72	86
98	811215114018	Karthik L	IV/MECH	27	90	19	76	83
99	811215114019	Karthikeyan K	IV/MECH	27	90	18	72	81



# Indra Ganesan

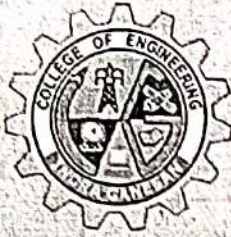
COLLEGE OF ENGINEERING  
Madurai Main Road (NH-45B), Manikandam, Tiruchirappalli- 620 012  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

S.No.	Reg.No	Student's Name	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
100	811215114020	Karupaiya R	IV/MECH	30	100	19	76	88
101	811215114021	Kathiravan M	IV/MECH	30	100	18	72	86
102	811215114023	Kristen Kennis K	IV/MECH	30	100	19	76	88
103	811215114024	Kumaran R	IV/MECH	30	100	20	80	90
104	811215114025	Manikandan N	IV/MECH	30	100	20	80	90
105	811215114026	Mathiyarasan S	IV/MECH	30	100	22	88	94
106	811215114027	Mohamed Burose A	IV/MECH	30	100	18	72	86

  
VAC Coordinator

  
Dr. C. Balakrishnan, M.E., Ph.D.,  
Principal  
Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandam, Trichy-620 012.

  
HOD/MECH



# Indra Ganesan

**COLLEGE OF ENGINEERING**  
Madurai Main Road (NH-45B), Manikandam, Tiruchirappalli- 620 012  
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## REPORT ON VALUE ADDED COURSE

Title:	Model Based Systems Engineering		
Resource Person:	Mr. Balaji Trainer CADD center Trichy	Mr. Jaya kumar Trainer CADD center Trichy	
Date of conduct from :	11.06.2019	To: 15.06.2019	Duration: 30 Hours
Organized Department :	Mechanical Engineering		
Participant Year:	2,3,4	No. of Students Registered :	106
Venue:	Mechanical Seminar hall		

### Outcome of Value Added Course (VAC): At the end of the Course, Students can able to

- Know to explain the Model-based Systems Engineering and Object-Process Methodology
- Know how to Creation and consumption of objects
- Learnt and Demonstrate Object-Process Language
- Students are expected to learn and practice the Problem occurrence
- Know to recall Refining synchronous processes: In-zooming
- They receive required training Link uniqueness and model fact representation principles

### Assessment Process

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

  
VAC Coordinator

  
HoD/MECH

  
Principal

Dr. G. Balakrishnan, M.Sc., Ph.D.  
Principal  
Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandam, Trichy-620 012.



# Indra Ganesan

**COLLEGE OF ENGINEERING**  
Madurai Main Road (NH-45B), Manikandam, Tiruchirapalli- 620 012  
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## SAMPLE PHOTOS OF VALUE ADDED COURSE

<b>Title:</b>	Model Based Systems Engineering				
<b>Resource Person:</b>	Mr. Balaji Trainer CADD center Trichy	Mr. Jaya kumar Trainer CADD center Trichy			
<b>Date of conduct from :</b>	11.06.2019	<b>To:</b>	15.06.2019	<b>Duration:</b>	30 Hours
<b>Organized Department :</b>	Mechanical Engineering				
<b>Participant Year:</b>	2,3,4	<b>No. of Students Registered :</b>	106		
<b>Venue:</b>	Mechanical Seminar hall				

**Outcome of Value Added Course (VAC): At the end of the Course, Students can able to**



*[Signature]*  
Dr. G. Balakrishnan, M.E., Ph.D.  
Principal  
Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandam, Trichy-620 012

*[Signature]*  
VAC Coordinator

*[Signature]*  
HOD, MECH

*[Signature]*  
Principal

Dr. G. Balakrishnan, M.E., Ph.D.  
Principal  
Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandam, Trichy-620 012






**Indra Ganesan**  
**COLLEGE OF ENGINEERING**  
Madurai Main Road (NH-45B), Manikandam, Tiruchirappalli- 620 012  
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## CADD CENTRE


Premier Plaza, No-122, II Floor, 5&44, Bharathiar Salai, Cantonment, Tiruchirappalli,

### CERTIFICATE OF PARTICIPATION

*This is to certify that Mr.Pulamadan K. of III Year MECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

  
Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal  
Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandam, Trichy-620 012.



  
Mr. Balaji,  
CADD Centre

*S.P. Balaji*



**Indra Ganesan**  
**COLLEGE OF ENGINEERING**  
Madurai Main Road (NH-46B), Manikandam, Tiruchirappalli- 620 012  
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## CADD CENTRE

Premier Plaza, No-122, II Floor, 5&44, Bharathiar Salai, Cantonment, Tiruchirappalli,

### CERTIFICATE OF PARTICIPATION

*This is to certify that Mr. Vasanth S of III Year MECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal  
Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandam, Trichy-620 012.



Mr. Balaji,  
CADD Centre



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**COLLEGE OF ENGINEERING**  
Madurai Main Road (NH-45B), Manikandam, Tiruchirappalli- 620 012  
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## CADD CENTRE

Premier Plaza, No-122, II Floor, 5&44, Bharathiar Salai, Cantonment, Tiruchirappalli,

### CERTIFICATE OF PARTICIPATION

*This is to certify that Mr. Dinesh Kumar B of IV Year MECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

**Dr. G. Balakrishnan, M.E., Ph.D.,**  
Principal

Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandam, Trichy-620 012.



**Mr. Balaji,**

**CADD Centre**



# Indra Ganesan


COLLEGE OF ENGINEERING  
Madurai Main Road (NH-45B), Manikandan, Tiruchirappalli- 620 032  
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## CADD CENTRE

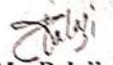
Premier Plaza, No-122, II Floor, S&44, Bharathiar Salai, Cantonment, Tiruchirappalli,

### CERTIFICATE OF PARTICIPATION

*This is to certify that Mr. Arun Kumar T of IV Year MECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

  
Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal  
Indra Ganesan College of Engineering  
23 Valley, Madurai Main Road  
Manikandan, Trichy-620 012.



  
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Premier Plaza, No-122, II Floor, 5&44, Bharathiar Salai, Cantonment, Tiruchirappalli,

### CERTIFICATE OF PARTICIPATION

*This is to certify that Mr.Kumaran R. of IV Year MECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal  
Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandam, Trichy-620 012.



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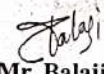
## CADD CENTRE

Premier Plaza, No-122, II Floor, 5&44, Bharathiar Salai, Cantonment, Tiruchirappalli,

### CERTIFICATE OF PARTICIPATION

*This is to certify that Mr. Karthick M of IV Year MECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

  
Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal  
Indra Ganesan College of Engineering  
IG Valley, Madurai-Main Road  
Manikandam, Trichy-620 012.

  
Mr. Balaji,  
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## CERTIFICATE OF PARTICIPATION

*This is to certify that Mr. Ajmalkhan K. of III Year M.ECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

  
Dr. C. Balakrishnan, M.E., Ph.D.,  
Principal  
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IG Valley, Madurai Main Road  
Manikandam, Trichy-620 012.



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
Premier Plaza, No-122, II Floor, 5&44, Bharathiar Salai, Cantonment, Tiruchirappalli,

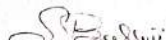
### CERTIFICATE OF PARTICIPATION

*This is to certify that Mr. Sasi Kumar S of III Year MECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

  
Dr. G. Balakrishnan, M.E., Ph.D.,  
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Premier Plaza, No-122, II Floor, 5&44, Bharathiar Salai, Cantonment, Tiruchirappalli,

### CERTIFICATE OF PARTICIPATION

*This is to certify that Mr. Naveen Kumar K, of III Year MECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

Dr. G. Balakrishnan, M.E., Ph.D.,  
Principal

Indra Ganesan College of Engineering  
IG Valley, Madurai Main Road  
Manikandam, Tiruchirappalli- 620 012



Mr. Balaji,

CADD Centre

*Handwritten signature*



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### CERTIFICATE OF PARTICIPATION

*This is to certify that Mr. Mahendran A of III Year MECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

**Dr. G. Balakrishnan, M.E., Ph.D.,**

Principal

Indra Ganesan College of Engineering

IG Valley, Madurai Main Road

Manikandam, Tiruchy-620 012



**Mr. Balaji,**

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*This is to certify that Mr. Kingsley J of III Year M.ECH, Indra Ganesan College of Engineering has successfully completed the Value Added course Model Based Systems Engineering conducted from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2018-2019 Even Semester.*

**Dr. G. Bala Krishnan, M.E., Ph.D.,**  
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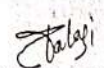
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
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
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