



THIAGARAJAR COLLEGE OF ENGINEERING - MADURAI 625 015
TCE-III

S.No	One credit course need analysis sheet	
1.	Name of the Course	Augmented Reality
2.	Name of the Industry	CDAC, Bangalore
3.	Name of the SIG associated with	Cognitive Science
4.	Motivation for offering the course	Emerging Technology
4.1	Feedback (If yes, Details of the feedback as per the annexure I)	
	From Recruiter	Y/N
	From Employer	Y/N
	From Alumni	Y/N
	From Academic Council members	Y/N
	From Board of Studies members	Y/N
	From Senior students	Y/N
	From current students	Y/N
	From Performance Assessment Committee	Y/N
	From Department Advisory committee	Y/N
4.2	Faculty participation in Seminar/FDP (If yes, details)	
	At higher learning institutes	Anna University, CEG Campus, Chennai
	At Industry	
5.	Outcomes expected	
	Technology transfer	Can be applied in various domains
	Student Internship	Yes possible
	Placement	Yes possible
	Organizing FDP/seminar at TCE	Organized workshop on Virtual Reality
	Collaborative research/consultancy projects	
	Faculty as Trainee/Trainer in the Industry	
	Joint publications	Working with professor at New-Mexico State University
	Setting up of Lab/Infrastructure	Yes – In process



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TCE-III

Attendance sheet for the one/two credit

Name of the Course: 14ITPM0 - Augmented Reality

Name of the Industry: CDAC, Bangalore

Name of the Expert: Utkarsh Mankad

Number of Students enrolled: 55

Name of the Faculty: T.Manju

Date/Time/Venue: 24th & 25th March 2018, 9.00 a.m to 5.00 p.m, IT Seminar Hall

Thiagarajar College of Engineering, Madurai-15.
(A Govt Aided Autonomous Institution affiliated to Anna University)
Department of Information Technology


14ITPM0 – Augmented Reality
Date: 24-03-2018 & 25-03-2018
Attendance Sheet

S.No	Reg No.	Name of the Student	24-03-2018 (F.N)	24-03-2018 (A.N)	25-03-2018 (F.N)	25-03-2018 (A.N)
1	14IT123	R.Kiruthika	/	/	/	/
2	15IT011	M H Archana	/	/	/	/
3	15IT012	Archana N	✓	✓	✓	✓
4	15IT013	C S Arthe	/	✓	✓	✓
5	15IT017	Avinash Kumar D	✓	✓	✓	✓
6	15IT018	Brinda D	✓	✓	✓	✓
7	15IT024	Gaja Lakshmi N	✓	✓	✓	✓
8	15IT028	Gouthami H	✓	✓	✓	✓
9	15IT031	Hanitha K	✓	✓	✓	✓
10	15IT032	G.Hari Priya	✓	✓	✓	✓
11	15IT036	Ignatius C	✓	✓	✓	✓
12	15IT038	J.Jeya Kowsalya	✓	✓	✓	✓

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13	15IT043	Kiruthika Varshini M	✓	✓	✓	✓
14	15IT049	Manicka Meenal M	✓	✓	✓	✓
15	15IT052	Meenu Sakhana S	✓	✓	✓	✓
16	15IT053	Miruthulaa P	✓	✓	✓	✓
17	15IT054	Monika D	✓	✓	✓	✓
18	15IT057	Murugeswari C	✓	✓	✓	✓
19	15IT058	S Muthu Gomathi	✓	✓	✓	✓
20	15IT061	J.P.Naveen Kumar	✓	✓	✓	✓
21	15IT064	P.Nithyakrishnan	✓	✓	✓	✓
22	15IT067	R.Pradeepraj	✓	✓	✓	✓
23	15IT068	Prasanna Kumar	✓	✓	✓	✓
24	15IT072	A.Rajalakshmi	✓	✓	✓	✓
25	15IT074	T.R.Ramki	✓	✓	✓	✓
26	15IT075	G.Ranjithkumar	✓	✓	✓	✓
27	15IT077	S Renukaa	✓	✓	✓	✓
28	15IT079	M.Sakthi	✓	✓	✓	✓
29	15IT081	M.Santhosh Sankar	✓	✓	✓	✓
30	15IT083	S.Saravana Prabakar	✓	✓	✓	✓
31	15IT087	J.Shagithiya	✓	✓	✓	✓
32	15IT089	S.Sannugasundaram	✓	✓	✓	✓
33	15IT090	R.Shanmuga Priyan	✓	✓	✓	✓
34	15IT094	R.Shindhujaa	✓	✓	✓	✓

35	15IT095	G.Sivaranjani	✓	✓	✓	✓
36	15IT097	G.P.Sripasad	✓	✓	✓	✓
37	15IT098	V.Srivatsan	✓	✓	✓	✓
38	15IT099	G.Subhiksha Gandhi	✓	✓	✓	✓
39	15IT101	Suriya S	✓	✓	✓	✓
40	15IT102	N.Surathi	✓	✓	✓	✓
41	15IT104	R.Susithra	✓	✓	✓	✓
42	15IT111	A.Vaishnavi	✓	✓	✓	✓
43	15IT113	K.Vigneswaran	✓	✓	✓	✓
44	15IT116	B. Vijayalakshmi	✓	✓	✓	✓
45	15IT118	A.Yovan	✓	✓	✓	✓
46	15IT119	A.Ajith Kumar	✓	✓	✓	✓
47	15IT120	M Ajmeer Raja	✓	✓	✓	✓
48	15IT122	S.Deva	✓	✓	✓	✓
49	15IT123	V.Guru Chandru	✓	✓	✓	✓
50	15IT124	J.Jeyapriyadarshini	✓	✓	✓	✓
51	15IT126	B.Naveen Balaji	✓	✓	✓	✓
52	15IT127	N.Ponselvam	✓	✓	✓	✓
53	15IT129	G.Ranjith Kumar	✓	✓	✓	✓
54	15IT130	V.Selvarasan	✓	✓	✓	✓
55	15IT131	G.Suryakumar	✓	✓	✓	✓


Faculty In-charge(s)


Signature of the Faculty Coordinator



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TCE-III

Course Schedule

Name of the Course: 14ITPM0 - Augmented Reality

Name of the Industry: CDAC, Bangalore

Name of the Expert: Utkarsh Mankad

Number of Students enrolled: 55

Name of the Faculty: T.Manju

Date/Time/Venue: 24th & 25th March 2018, 9.00 a.m to 5.00 p.m, IT Seminar Hall

Date	Time	Session
24.03.2018 Forenoon session	9.00 a.m to 11.00 a.m	Introduction to AR,VR and MR, The Mixed Reality Continuum, Working Principle of AR, A typical AR system
	11.00 a.m to 11.15 a.m	TEA BREAK
	11.15 a.m to 1.00 p.m	Importance of context in AR - Context determination techniques in visual domain, - Basics of Computer Vision to enhance image for context determination,
	1.00 p.m to 2.00 p.m	LUNCH BREAK
24.03.2018 Afternoon Session	2.00 p.m to 3.15 p.m	Various CV pattern recognition algorithms for context determination, Intro to gesture recognition, Context determination techniques in non-visual domain -Various sensors on mobile, Determining sensor values
	3.15 p.m to 3.30 p.m	TEA BREAK
	3.30 p.m to 5.00 p.m	Connecting Context and Content in AR System, Various types of contents. Associating content to context, Content

		Rendering in AR, POSE estimation, Obtaining RST (Rotation Scaling Translation) matrix, Rendering 2D content - Images and Video, Rendering 3D content - 3D models -AR Application Areas.
25.03.2018 Forenoon session	9.00 a.m to 11.00 a.m	Working with 3D modeling packages such as Unity 3D -Working with Vuforia and Unity 3D - Deploying AR apps on mobile
	11.00 a.m to 11.15 a.m	TEA BREAK
	11.15 a.m to 1.00 p.m	Hands on for developing AR apps with static images
	1.00 p.m to 2.00 p.m	LUNCH BREAK
25.03.2018 Afternoon Session	2.00 p.m to 3.15 p.m	Hands on' for developing AR apps with 3D models
	3.15 p.m to 3.30 p.m	TEA BREAK
	3.30 p.m to 5.00 p.m	Hands on for developing AR apps with 3D models with motion, virtual buttons



Signature of the Faculty coordinator


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Course Instructor Feedback for One/Two credit course

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	Comments
Student attendance	
Level of the students in understanding the concepts	Very much interested.
Any suggestions regarding new content to be included as Prerequisites/Special electives	Can be included as elective in the programme.
Hall/Lab arrangements	Dedicated Lab for Virtual Reality and Augmented reality
Hospitality	Good

Signature of the Course Instructor

Signature of Head of the Department