



THIAGARAJAR COLLEGE OF ENGINEERING - MADURAI 625 015
TCE-III

S.No	One credit course need analysis sheet	
1.	Name of the Course	Mobile Hydraulics
2.	Name of the Industry	M/s REXROTH BOSCH
3.	Name of the SIG associated with	Automation and Control
4.	Motivation for offering the course	Gap analysis 14MT450 Fluid Power Automation course.
4.1	Feedback (If yes, Details of the feedback as per the annexure I)	
	From Recruiter	N
	From Employer	N
	From Alumni	N
	From Academic Council members	Y
	From Board of Studies members	Y
	From Senior students	N
	From current students	Y
	From Performance Assessment Committee	N
	From Department Advisory committee	N
4.2	Faculty participation in Seminar/FDP (If yes, details)	
	At higher learning institutes	NO
	At Industry	YES
5.	Outcomes expected	
	Technology transfer	YES
	Student Internship	YES
	Placement	YES
	Organizing FDP/seminar at TCE	YES
	Collaborative research/consultancy projects	NO
	Faculty as Trainee/Trainer in the Industry	YES
	Joint publications	NO
	Setting up of Lab/Infrastructure	YES

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI - 625015

(An Autonomous Institution Affiliated to Anna University)

Department of Mechatronics

Attendance sheet for One Credit Course- "MOBILE HYDRAULICS" on 28.01.2017 & 29.01.2017

S No.	Regno.	Name	28.01.2017		29.01.2017	
			FN	AN	FN	AN
1	14F01	AARTH,T.	-	-	-	-
2	14F02	AJITH KUMAR,G.	G.Ajith	G.Ajith	G.Ajith	G.Ajith
3	14F03	ANTONY,S.	S.Antony	S.Antony	S.Antony	S.Antony
4	14F04	ARAVIND,G. ✓ Permission	-	-	-	-
5	14F05	ARUN PANDIAN,K.	Arun	Arun	Arun	Arun
6	14F06	ARUNKUMAR,P K	Arun	Arun	Arun	Arun
7	14F07	BALAJI,D.	Balaji	Balaji	Balaji	Balaji
8	14F08	BALASELVAGANESH,B.	B.Balaselvaganesh	B.Balaselvaganesh	B.Balaselvaganesh	B.Balaselvaganesh
9	14F09	CHANDRA PREETHI,B.	-	-	-	-
10	14F10	CHARLES,G.	-	-	-	-
11	14F11	CONDA ASUTHOSH RAMESH	Conda	Conda	Conda	Conda
12	14F12	DEEPAKRAJAN,D.V.	-	-	-	-
13	14F13	DINESH KUMAR,S.	Dinesh	Dinesh	Dinesh	Dinesh
14	14F14	DIVYA,P.	Divya	Divya	Divya	Divya
15	14F15	GAUSIG PANDIAN,M.	M.Gausig	M.Gausig	M.Gausig	M.Gausig
16	14F16	GOKULNATH,G.	Gokul	Gokul	Gokul	Gokul
17	14F17	GOWTHAM,K.	Gowtham	Gowtham	Gowtham	Gowtham
18	14F18	GUNASEELAN,K.	Gunaseelan	Gunaseelan	Gunaseelan	Gunaseelan
19	14F19	JAYA SOORIYA,P. Permission	-	-	-	-
20	14F20	JITESH,S.	Jitesh	Jitesh	Jitesh	Jitesh
21	14F21	JOE CHRISTUS,E.	Joe	Joe	Joe	Joe
22	14F22	JOSHI JOY	-	-	-	-
23	14F23	JOSHUA DAVID,A.	Joshua	Joshua	Joshua	Joshua
24	14F25	KISHORE KAVI,R.	Kishore	Kishore	Kishore	Kishore
25	14F26	KUMAR,M.	M.Kumar	M.Kumar	M.Kumar	M.Kumar
26	14F27	KUMARESAN,S.	S.Kumaresan	S.Kumaresan	S.Kumaresan	S.Kumaresan
27	14F28	LENN,M.	-	-	-	-
28	14F29	MADHURA LAKSHMI,S.	S.Madhura	S.Madhura	S.Madhura	S.Madhura
29	14F30	MAHENDRAN,M.	M.Mahendran	M.Mahendran	M.Mahendran	M.Mahendran
30	14F31	MANOJ KUMAR,R.	R.Manoj	R.Manoj	R.Manoj	R.Manoj
31	14F32	MUTHU KRISHNAN,V	V.Muthu	V.Muthu	V.Muthu	V.Muthu
32	14F33	MUTHUCHARAN,R.	R.Muthucharan	R.Muthucharan	R.Muthucharan	R.Muthucharan
33	14F34	NEERAJ VENKATESH,K	-	-	-	-
34	14F35	PRABURAJ,P.	P.Praburaj	P.Praburaj	P.Praburaj	P.Praburaj

S No.	Regno.	Name	28.01.2017		29.01.2017	
			FN	AN	FN	AN
35	14F36	PRASANNA BALAJI,G.S.	<i>G.S. Prasnanna</i>	<i>G.S. Prasnanna</i>	<i>G.S. Prasnanna</i>	<i>G.S. Prasnanna</i>
36	14F37	PRIYADHARSHINI,R.	—	—	—	—
37	14F38	RAGHU RAMAN,B	<i>B. Ragu</i>	<i>B. Ragu</i>	<i>B. Ragu</i>	<i>B. Ragu</i>
38	14F40	RAJA RAJESHWARI,S.	—	—	—	—
39	14F41	RAM KUMAR, S.	<i>S. Ram Kumar</i>	<i>S. Ram Kumar</i>	<i>—</i>	<i>—</i>
40	14F42	RIAZ AHMED,K.	<i>K. Riaz</i>	<i>K. Riaz</i>	<i>K. Riaz</i>	<i>K. Riaz</i>
41	14F43	ROBY,J.	<i>J. Roby</i>	<i>J. Roby</i>	<i>J. Roby</i>	<i>J. Roby</i>
42	14F45	SABARI MONISHA,T.	—	—	—	—
43	14F46	SAHITHYA,K.	—	—	—	—
44	14F48	SARATHKUMAR,P.	<i>P. Sarathkumar</i>	<i>P. Sarathkumar</i>	<i>P. Sarathkumar</i>	<i>P. Sarathkumar</i>
45	14F49	SATISH,M.S.	—	—	—	—
46	14F50	SIBI NANDAN,G.	<i>G. Sibi Nandan</i>	<i>G. Sibi Nandan</i>	<i>G. Sibi Nandan</i>	<i>G. Sibi Nandan</i>
47	14F51	SRISARAN,SV.	<i>S. Srisaran</i>	<i>S. Srisaran</i>	<i>S. Srisaran</i>	<i>S. Srisaran</i>
48	14F52	STEEV WINSTON,T.	<i>T. Steev Winston</i>	<i>T. Steev Winston</i>	<i>T. Steev Winston</i>	<i>T. Steev Winston</i>
49	14F53	SUGANTHAN,M.	<i>M. Suganthan</i>	<i>M. Suganthan</i>	<i>M. Suganthan</i>	<i>M. Suganthan</i>
50	14F54	VENKATESH,M.	<i>M. Venkatesh</i>	<i>M. Venkatesh</i>	<i>M. Venkatesh</i>	<i>M. Venkatesh</i>
51	14F55	VENKATESHWARAN,M.	<i>M. Venkateshwaran</i>	<i>M. Venkateshwaran</i>	<i>M. Venkateshwaran</i>	<i>M. Venkateshwaran</i>
52	14F56	VIDHYA SHANKAR,E.	<i>E. Vidhya Shankar</i>	<i>E. Vidhya Shankar</i>	<i>E. Vidhya Shankar</i>	<i>E. Vidhya Shankar</i>
53	14F57	VIGNESH PERUMAL,S.	<i>S. Vignesh Perumal</i>	<i>S. Vignesh Perumal</i>	<i>S. Vignesh Perumal</i>	<i>S. Vignesh Perumal</i>
54	14F58	* VIGNESH,S.	<i>S. Vignesh</i>	<i>S. Vignesh</i>	<i>S. Vignesh</i>	<i>S. Vignesh</i>
55	14F59	VIGNESHWARAN,M.	<i>M. Vigneshwaran</i>	<i>M. Vigneshwaran</i>	<i>M. Vigneshwaran</i>	<i>M. Vigneshwaran</i>
56	14F60	VINITH KUMAR,M.	<i>M. Vinith Kumar</i>	<i>M. Vinith Kumar</i>	<i>M. Vinith Kumar</i>	<i>M. Vinith Kumar</i>
57	14F61	DEEPAKKUMAR,V.	<i>V. Deepakkumar</i>	<i>V. Deepakkumar</i>	<i>V. Deepakkumar</i>	<i>V. Deepakkumar</i>
58	14F62	GANESHKUMAR,D. Permission	<i>D. Ganeshkumar</i>	<i>D. Ganeshkumar</i>	<i>D. Ganeshkumar</i>	<i>D. Ganeshkumar</i>
59	14F63	GOMATHISHANKAR,G.	<i>G. Gomathishankar</i>	<i>G. Gomathishankar</i>	<i>G. Gomathishankar</i>	<i>G. Gomathishankar</i>
60	14F64	JEYAMURUGAN,J.	<i>J. Jeyamurugan</i>	<i>J. Jeyamurugan</i>	<i>J. Jeyamurugan</i>	<i>J. Jeyamurugan</i>
61	14F65	MOHAMED NOORDEEN,M.	<i>M. Mohamed Noordeen</i>	<i>M. Mohamed Noordeen</i>	<i>M. Mohamed Noordeen</i>	<i>M. Mohamed Noordeen</i>
62	14F66	POUNRAJ,S.	<i>S. Pounraj</i>	<i>S. Pounraj</i>	<i>S. Pounraj</i>	<i>S. Pounraj</i>
63	14F67	PRIYADHARSHAN,M.	<i>M. Priyadharshan</i>	<i>M. Priyadharshan</i>	<i>M. Priyadharshan</i>	<i>M. Priyadharshan</i>
64	14F68	RAJARAMAN,M.	<i>M. Rajaraman</i>	<i>M. Rajaraman</i>	<i>M. Rajaraman</i>	<i>M. Rajaraman</i>
65	14F69	SENTHIL KUMARAN,R.	<i>R. Senthil Kumaran</i>	<i>R. Senthil Kumaran</i>	<i>R. Senthil Kumaran</i>	<i>R. Senthil Kumaran</i>
66	14F70	SILAMBARASAN,R.	<i>R. Silambarasan</i>	<i>R. Silambarasan</i>	<i>R. Silambarasan</i>	<i>R. Silambarasan</i>
67	14F71	SUBBU RAJ,R.	<i>R. Subbu Raj</i>	<i>R. Subbu Raj</i>	<i>R. Subbu Raj</i>	<i>R. Subbu Raj</i>

S. Subbu Raj
Course Coordinator

[Signature]
HDMCT



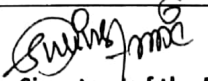
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TCE-III

Course Schedule

Name of the Course: Mobile Hydraulics
Name of the Industry: M/s BOSCH REXROTH
Name of the Expert: Mr.T.S.BHARATH
Number of Students enrolled: 67 Students.
Name of the Faculty: Mr.H.Ramesh and S.Julius Fusic
Date/Time/Venue: 28/01/2017 and 29/01/2017 (2days) /Mechanical Seminar Hall

Date	Time	Topics	Remarks
Day1	9:00 Am to 01:00Pm	Basics of mobile hydraulics – Hydraulics Pumps and Motors for mobile applications-Gear pumps and gear motors-Electro hydraulic pumps-Hydrostatic fan drives in vehicles.	
	02:00 Pm to 05:00Pm	Working and symbolic diagram of Check valves, Pressure valves, Flow control valves, Directional Control valves, Safety valves.	
Day2	9:00 Am to 01:00Pm	Control Circuits of Mobile Hydraulics using Throttle control, Load Sensing Control, Sandwich type mobile control valves, Mobile Control blocks, Proportional and servo technology for mobile applications.	
	02:00 Pm to 05:00Pm	Electro hydraulic hitch control for tractors; CAN bus in Mobile hydraulics, various types of Mobile machines and its typical circuits and Hands on in Fluid sim and Automation studio software.	



Signature of the Faculty coordinator

Course Instructor Feedback for One/Two credit course

TCE-III

Name of the Course: Mobile Hydraulics

Name of the Industry: M/s.BOSCH REXROTH

Name of the Expert: Mr.TS.BHARATH

Date/Time/Venue: 28/01/2017 and 29/01/2017 (2days) / Mechanical Seminar Hall

	Comments
Student attendance	Holds Good
Level of the students in understanding the concepts	Around 80 % students understand the concept
Any suggestions regarding new content to be included as Prerequisites/Special electives	Need to add Project based Learning and introduction to Mobile hydraulics and Industry 4.0
Hall/Lab arrangements	Established properly
Hospitality	Good

T. S. Bharath

Signature of the Course Instructor