Dhirajlal Gandhi College of Technology, Salem

Outcomes of Mou's

From the undersigned MoU's with Dhirajlal Gandhi College of Technology more number of activities are done and gained following outcomes.

- ➤ Industries and corporate companies offering In-Plant training and Internship to students in every year hence students can gain the industrial knowledge.
- ➤ Many organizations offers **job oriented placement training** in on and off site and provide placement opportunities to students like Tessolve Semiconductor Pvt. Ltd.,, Mukesh & Associates, LIVEWIRE CADD Centre Training Services Pvt Ltd, National Institute of Renewable Energy Technology, Buddihealth Inc., etc.,
- ➤ Industry persons and Dhirajlal Gandhi College of Technology Faculty members are **sharing their knowledge** by conducting various workshops/webinars, guest lecturers etc.,
- ➤ Faculty and students allowed **visiting the company** to enhance practical knowledge.
- ➤ Every visit and interactions, faculty members and industry persons are updating their subject and technology trending.
- ➤ MoU undersigned industry/ corporate house helps to **establishment of Sponsored research Laboratory/centre** like Tessolve Semiconductor Pvt.

 Ltd., Oracle Academy, Mukesh & Associates, Megatech Scientific Pvt Ltd,

 NI Systems (India) pvt ltd, EMC² Academic Alliance etc.,
- ➤ Private corporate house undersigned with Dhirajlal Gandhi College of Technology will **grand the Fund to carry the research projects and consultancy** like Precision Camshafts Ltd, Aerospace Engineers Pvt. Ltd , Mukesh & Associates, G5 Switch Gear, etc.,



TESSOLVE SEMICONDUCTOR TEST ENGINEERING LAB FOR STE-SDC COURSE

Training Partner Agreement Between Tessolve & Dhirajlal Gandhi College of Technology,Salem

April 4, 2019
Tessolve Semiconductor Pvt Ltd
Plot No. 31 (P2), Electronic City Phase II
Bangalore 560100, India
T: +91 80 4181 2626
F: +91 80 4120 2626
W: www.tessolve.com



Training Partner Agreement

This Agreement, effective 4th April, 2019, is between Tessolve Semiconductor Pvt Ltd, having an office at Plot No. 31 (P2), Electronic City Phase II, Bangalore 560100 and Dhirajlal Gandhi College of Technology, having an office at Salem.

The Dhirajlal Gandhi College of Technology, henceforth known as the "Training Partner" hereby agrees to participate in setting up a Tessolve Semiconductor Test Engineering Lab and offer the STE-SDC course for final year engineering graduates, subject to the following guidelines.

1. Objective

The objective of TSTE Lab is to offer **STE-SDC** Course to ECE/EEE/IE undergraduate students.

2. Term

The term of this Agreement shall be for Three (3) Years commencing on 4th April, 2019, renewable by the parties with mutual consent.

- 3. Terms & Conditions for setting up the TSTE Lab and conducting the STE-SDC course
 - a) Tessolve selects the Training Partner based on factors like qualification of the training staff, location and capabilities to handle the training.
 - b) ADM & Tessolve will train the Trainers once the qualified college signs the Training Partner Agreement.
 - c) Tessolve will recommend the batch size depending on the infrastructure provided by the Training Partner. Multiple batches can be conducted in case of large enrolment.
 - d) Tessolve will provide the course content to be used by the Training Partner.
 - e) The Training Partner will be responsible for enrolment of the candidates and getting a batch approved from Tessolve before start of the training.
 - f) Training Partner will be responsible for conducting the training and coordination with Tessolve for the assignments.
 - g) Tessolve will carry out periodic visits to the TSTE Lab for assessments

1 . 20

TESSOLVE SEMICONDUCTOR PVT. LTD.

Plot No.31 (P2), Electronic City, Phase II, Bangalore – 560 100, INDIA T: +91 80 4181 2626 F: +91 80 4120 2626 W: www.tessolve.com CIN: U72300KA1993PTC034929 ISO 9001: 2015

Marke



This Agreement is valid only for the Training Partner who have signed with Tessolve, and is not transferable or sub-contractible to any other third person or entity.

IN WITNESS WHEREOF, M/s. Tessolve Semiconductor Pvt. Ltd. and the Training Partner have entered into this agreement and agree to the above terms in their entirety.

For Tessolve Semiconductor Pvt. Ltd.

Mr. Rajakumar D

Vice President - Operations

For Dhirajlal Gandhi College of Technology

Mr. _____ARCHANA MANOJKUMAR, B.E., M.E.(SE)

Designation Dhirailal Gandhi College

Dhirajlal Gandhi College of Technology Sikkanampatty, Salem - 636 309.

DHIRAJLAL GANDHI COLLEGE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TESSOLVE SEMICONDUCTOR TEST ENGINEERING COURSE **Syllabus**

Topics

Basic Electronics

Components and classification

- i) Resistor -classification-material used, value identification-multi meter & color coding, Series and Parallel combination operation, VI characteristics analysis and test report generation
- ii) Capacitor- Types, Value identification- color coding, polarity, Series and Parallel combination operation, High/low frequency operation
- iii) Inductor- Types, Value identification- color coding, Series and Parallel combination operation
- iV) Diode -operation (forward-reverse), Rated forward current VI& IV characteristics analysis (regions, cut-in volt, breakdown voltage) and test report generation, types of diodes datasheet of 1N4007 reading and discussion

BJT/FET/ MOSFET - Transistor Classification, Operation, configuration, biasing analysis, application, Non ideal characteristics, Datasheet analysis, transistor packages

CMOS- understanding of the logic, implementation of basic gates, Area/power/speed trade off

VLSI design and Test engineering Process

Device life cycle- concept of testing, Test flow-[Continuity test, leakage test, functional test, Test mode test, Manufacturing and Process related test, Test limits for different flows, Guard band for test], Binning, Test engineering roles and responsibility

ATE in semiconductor industry

ATE-introduction, Handler, Prober, important blocks of ATE[Power supply, Meter, Pattern generator, Logic Analyzer], critical specifications, throughput and cost , Types of ATE, Programming ATE, Limitations of ATE, Getting started with LG Lite ATE, hardware and tool description

Vector generation and DUT response analysis

Vector/waveform understanding and generation for the DUT, Understanding and verifying Timing, Edges and levels, test debug, characterization-parametric characterization, PVT, Shmoo diagram

Design for test, ATE test program overview, Test Experiments-Basic Gates, Mux, Decoder, I2C bus

HON ECE

Dr. V. MURALI BHASKARAN, M.E., Ph.D Dhirailat Gandhi College of Technology

ANNA UNIVERSITY, CHENNAI AFFILIATED INSTITUTIONS

R-2013

B.E. ELECTRONICS AND COMMUNICATION ENGINEERING I – VIII SEMESTERS CURRICULUM AND SYLLABUS

SEMESTER I

SL. No.	COURSE CODE	COURSE TITLE	L	Т	Р	С	
THEO	THEORY						
1.	HS6151	<u>Technical English – I</u>	3	1	0	4	
2.	MA6151	Mathematics – I	3	1	0	4	
3.	PH6151	Engineering Physics – I	3	0	0	3	
4.	CY6151	Engineering Chemistry – I	3	0	0	3	
5.	GE6151	Computer Programming	3	0	0	3	
6.	GE6152	Engineering Graphics	2	0	3	4	
PRAC	PRACTICALS						
7.	GE6161	Computer Practices Laboratory	0	0	3	2	
8.	GE6162	Engineering Practices Laboratory	0	0	3	2	
9.	GE6163	Physics and Chemistry Laboratory - I	0	0	2	1	
		TOTAL	17	2	11	26	

SEMESTER II

SL. No.	COURSE	COURSE TITLE	L	Т	Р	С	
THEO	THEORY						
1.	HS6251	<u>Technical English – II</u>	3	1	0	4	
2.	MA6251	Mathematics – II	3	1	0	4	
3.	PH6251	Engineering Physics – II	3	0	0	3	
4.	CY6251	Engineering Chemistry – II	3	0	0	3	
5.	EC6201	Electronic Devices	3	0	0	3	
6.	EE6201	Circuit Theory	3	1	0	4	
PRAC	PRACTICALS						
7.	GE6262	Physics and Chemistry Laboratory - II	0	0	2	1	
8.	EC6211	Circuits and Devices Laboratory	0	0	3	2	
		TOTAL	18	3	5	24	

SEMESTER VII

ELECTIVE-II

SL. No.	COURSE CODE	COURSE TITLE	L	Т	Р	С
5.	EC6004	Satellite Communication	3	0	0	3
6.	EC6005	Electronic Testing	3	0	0	3
7.	EC6006	Avionics	3	0	0	3
8.	CS6012	Soft Computing	3	0	0	3
9.	IT6005	Digital Image Processing	3	0	0	3
10.	CS6013	Foundation Skills in Integrated Product Development	3	0	0	3

ELECTIVE-III

SL. No.	COURSE CODE	COURSE TITLE	L	T	Р	С
11.	EC6007	Speech Processing	3	0	0	3
12.	EC6008	Web Technology	3	0	0	3
13.	EC6009	Advanced Computer Architecture	3	0	0	3
14.	EC 6010	Electronics Packaging	3	0	0	3
15.	EC6011	Electro Magnetic Interference and Compatibility	3	0	0	3

ELECTIVE - IV

SL. No.	COURSE CODE	COURSE TITLE	L	Т	Р	С
16.	EC6012	CMOS Analog IC Design	3	0	0	3
17.	EC6013	Advanced Microprocessors and Microcontrollers	3	0	0	3
18.	EC6014	Cognitive Radio	3	0	0	3
19.	EC6015	Radar and Navigational Aids	3	0	0	3
20.	EC6016	Opto Electronic Devices	3	0	0	3

REFERENCES:

- 1. Wilbur L.Pritchard, Hendri G. Suyderhoud, Robert A. Nelson, "Satellite Communication Systems Engineering", Prentice Hall/Pearson, 2007.
- 2. N.Agarwal, "Design of Geosynchronous Space Craft", Prentice Hall, 1986.
- 3. Bruce R. Elbert, "The Satellite Communication Applications", Hand Book, Artech House Bostan London, 1997.
- 4. Tri T. Ha, "Digital Satellite Communication", II nd edition, 1990.
- 5. Emanuel Fthenakis, "Manual of Satellite Communications", Mc Graw Hill Book Co., 1984.
- 6. Robert G. Winch, "Telecommunication Trans Mission Systems", Mc Graw-Hill Book Co., 1983.
- 7. Brian Ackroyd, "World Satellite Communication and earth station Design", BSP professional Books, 1990.
- 8. G.B.Bleazard, "Introducing Satellite communications", NCC Publication, 1985.
- 9. M.Richharia, "Satellite Communication Systems-Design Principles", Macmillan 2003.

EC6005

ELECTRONIC TESTING

LT PC

OBJECTIVES:

- To understand the basics of testing and the testing equipments
- To understand the different testing methods

UNIT I INTRODUCTION

9

Test process and automatic test equipment, test economics and product quality, fault modeling

UNIT II DIGITAL TESTING

a

Logic and fault simulation, testability measures, combinational and sequential circuit test generation.

UNIT III ANALOG TESTING

9

Memory Test, DSP Based Analog and Mixed Signal Test, Model based analog and mixed signal test, delay test, IIDQ test.

UNIT IV DESIGN FOR TESTABILITY

9

Built-in self-test, Scan chain design, Random Logic BIST, Memory BIST, Boundary scan test standard, Analog test bus, Functional Microprocessor Test, Fault Dictionary, Diagnostic Tree, Testable System Design, Core Based Design and Test Wrapper Design, Test design for SOCs

UNIT V LOADED BOARD TESTING

9

TOTAL: 45 PERIODS

Unpowered short circuit tests, unpowered analog tests, Powered in-circuit analog, digital and mixed signal tests, optical and X-ray inspection procedures, functional block level design of in-circuit test equipment

OUTCOMES:

Upon completion of the course, students

- Explain different testing equipments.
- Design the different testing schemes for a circuit.
- Discuss the need for test process

TEXT BOOK:

1. Michael L. Bushnell and Vishwani D. Agarwal, "Essentials of Electronic Testing for Digital, Memory & Mixed-Signal VLSI Circuits", Springer, 2006.

Dhirajlal Gandhi College of Technology, Salem

Department of Electronics and Communication Engineering

TESSOLVE SEMICONDUCTOR TEST ENGINEERING COURSE

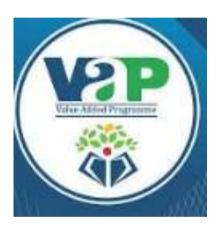
Batch III Name list Academic Year 2018-2019

S.No.	Name of the Student	Class
1)	KARTHIKSIVA S	IV - A Sec
2)	ASWINI K	IV – A Sec
3)	REVATHI V	IV – B Sec
4)	SUVALAKSHMI A	IV – B Sec
5)	INDUSHREE N	IV - A Sec
6)	DHRUVI A BHALODIYA	IV - A Sec
7)	KISHORE KUMAR R	IV – A Sec
8)	KARAN S	IV – A Sec
9)	KOUSALYA S	IV – A Sec
10)	NITHYA SHREE G	IV – B Sec
11)	ISAI ARASAN G	IV - A Sec
12)	ANNIES P M	IV - A Sec
13)	SRI VAISHNAVI R	IV – B Sec
14)	NARMATHA D	IV - A Sec
15)	KARTHICK P	IV - A Sec
16)	SASIPRIYA M	IV – B Sec
17)	MONICA M	IV - A Sec
18)	RAGUL V	IV – B Sec
19)	INDHUPRIYA M	IV – A Sec



Department of Electronics and Communication Engineering

Value Added programme







Accredited by NAAC | Approved by AICTE & Affiliated to Anna University | Opposite Salem Airport, Salem - 636 309. www.dact.ac.in

Certificate of Participation

This is to certify that of Ms.M.MONICA Dhirajlal Gandhi College of Technology, Salem. has successfully completed the value added programme on **ELECTRONIC TESTING** during the Academic year 2018-2019

















































6th December 2019

Monica M

Dear Monica M,

With reference to your application and the subsequent interview you had with us, we are pleased to appoint you as "Test Engineer 1" as per the terms and conditions given below:

- 1. The salary and other emoluments and benefits are as per Annexure. The details pertaining to your appointment letter and salary are strictly confidential between you and the company and you should not discuss these details with anyone within or outside the company, except your Senior Manager or the HR in-charge.
- 2. You shall be on probation for a period of six months, with effect from the date of completion of the training period. Should your work be found satisfactory at the end of the period of probation, your appointment will be confirmed in writing. Unless so confirmed in writing, you shall continue to be on probation. The probation period is extendable at the sole discretion of the management.
- 3. From the date of joining, you will abide by the Provident Fund, Medical and LTA and Leave Rules, as applicable to you.
- 4. During the probationary period and after confirmation, your service will be terminable at the discretion of the company on giving ninety days of notice or on payment of ninety days pay in lieu of such notice. If you wish to resign from the services of the company during probation period and after confirmation, you will do so by giving ninety days prior notice.
- 5. During the period of your employment with the company you shall not secure or try to secure any other employment, whether full time or part time, or engage in any commercial business or pursuit on your own account or as an agent for others. During your employment with the company, you shall not undertake any course or study without getting permission from the management.
- 6. During the period of your employment with the company you may be required to work on customer projects. If you were to resign from the services of the company, you shall not work for the same customer or customer's customer (for the projects handled within last one year) either directly as an employee/contractor or through another organization, for a period of six months from your separation from the company.



- 7. You shall not at any time, without the consent of the company, disclose, divulge or make public, except under legal obligation, by word of mouth or otherwise, details of manufacturing processes, technical know-how, security arrangements, administration, accounts of any other dealings of the company known to you in the course of your service or otherwise.
- 8. You shall abide by the Rules and Regulations of the company which are in force and / or which may be framed from time to time.
- 9. You shall be responsible for the safekeeping and return in good condition and order of all the company's property, which may be in your use, custody or charge.
- 10. You will work under the supervision of such officers, as may be decided by the company from time to time. You shall diligently and faithfully carry out instructions given to you to the best of your power, skill and ability in the best interests of the company.
- 11. You are required to maintain yourself in a state of medical/physical, mental fitness and ensure annual medical checkups. Any neglect on your part in this regard may render your service liable for termination with immediate effect.
- 12. If at any time in the opinion of the company, which shall be final, you become insolvent or are found guilty of dishonesty, disobedience, misappropriation, theft, fraud, disorderly behavior, negligence, indiscipline, absence from duty without permission, violation of any company policies or of any other conduct considered by the company as detrimental to its interests or of violation of one or more terms of this appointment, you would either be subject to strict disciplinary action or your services may be terminated without notice, based on the severity of the violation.
- 13. You are liable to be transferred to any place of business of the organization whether existing or acquired later on or from any one department to another or from one job to another as the management may consider it necessary in its discretion, from time to time without detriment to your status or emoluments.
- 14. You shall keep the company informed of any change in your residential address or any civil status.
- 15. The retirement age as per the company's policy is 60 years
- 16. Your initial place of posting will be at **Bangalore**.



Annexure - Emoluments & Benefits

Name: Monica M

Designation: Test Engineer 1 Grade: T7B

Location: Bangalore Job Category: Technical

WEF: 15-June-20

Cost to Company
In Indian Runees

In Indian Kupees			
Salary	Per Month	Per Annum	
Basic	10000	120000	
HRA @ 50% of Basic	5000	60000	
Conveyance allowance	1600	19200	
Medical Allowance	1250	15000	
Flexible Benefit Plan	5350	64200	
Total (A)	23200	278400	
Company Contribution			
Provident Fund	1800	21600	
Total (B)	25000	300000	
Gratuity *	481	5772	
Health & Personal Accident Insurance *	500	6000	
Statutory Bonus *	1400	16800	
Leave Benefits *	666	8000	
Total Cost to Company	28047	336564	

FOR TESSOLVE SEMICONDUCTOR PVT LTD

Thirumalesh Babu

Director - HR & Operations

Other Benefits

- 1) (*) As per prevailing company policy
- 2) From total A Component, employee contribution of PF, Professional Tax and Income Tax, as applicable, will be deducted.



- Accredited by NAAC -

Approved by AICTE Affiliated to Anna University, Chennai

Successfully Placed in

Department of

Electronics & Communication Engineering



Students Placed in TESSOLVE

Placed Students - 2016



Ms.S.Gomathi







Ms. Subha

Placed Students - 2018







Ms. Sangeetha





Ms. Chitra T



Ms. Kowsalya S



Ms. Venkata Ramya



Ms. Pavithra S





Ms. Revathy



Ms. Monica



Ms. Shrimathi

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