



SASURIE COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi. Affiliated to Anna University, Chennai

Near NH544, Coimbatore Bypass, Near Vijayamangalam Tollgate, Tirupur 638056

NAAC DOCUMENTS

QUALITY INDICATOR FRAME WORK

CRITERION - 1

CURRICULAR ASPECTS

SUBMITTED BY

IQAC

INTERNAL QUALITY ASSURANCE CELL

SASURIE COLLEGE OF ENGINEERING



Criterion 1	Curricular Aspects	100
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1.1 Curricular Planning and Implementation (20)

1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

Table of Contents

S.No	Description
1	Contents - Course File
2	Time Table
3	Students Name List
4	Subject Information Record
5	Syllabus
6	Lesson Plan
7	Test Plan For Subject
8	Result Analysis of Test
9	Corrective Action Report
10	Quality Objective Monitoring Record
11	Assignment Schedule
12	Internal question paper
13	Internal assessment Test Answer book
14	Assignment Question Paper
15	Assignment Answer Sheet



SASURIE
College of Engineering
Vijayamangalam, Tiruppur.

Department : Electrical and Electronics Engineering
Subject Code & Name : EE6802 & Solid State Drives
Class & Batch : IIIrd yr
Semester : VI

S.NO	CONTENTS - COURSE FILE PARTICULARS	REMARKS
1	Time Table	
2	Student name list	
3	Student arrear list	
4	Subject Information Record	
5	Syllabus	
6	Lesson Plan	
7	Test Plan for the Subject	
8	Result Analysis	
9	Corrective Action Report	
10	Quality objective monitoring record	
11	Internal test mark sheet(Consolidated)	
12	Internal test question paper with answer key	
13	Model question paper with answer key	
14	Slip test question paper with answer key	
15	Sample Answer paper for all test(Min-2)	
16	Content beyond the syllabus	
17	Tutorial Class - schedule and content	
18	Assignment - schedule and paper	
19	PPT - handout	
20	Video - Animation - Soft copy	
21	Question bank	
22	Sample university question papers(min 5 QP-recent exam)	
23	Lecture Note	
24	Special Class if any, Approval letter, Schedule, content covered.	
25	Spark faculty score, student score	

Sign:	Prepared By S. Deepika Faculty	Approved By HD
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Dr. M. VIJAYAKUMAR ME., Ph.D.,
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Vijayamangalam - 638 056, Tirupur (Dt).



CLASS TIME TABLE- Academic Year 2018-19- EVEN Semester

Name: Mrs S Deepika
Designation: Assistant Professor/EEE

Date: 15.12.2018
Department: EEE

HOUR	I	II	III	IV	V	VI	VII	VIII
8.55 a.m. TO 9.00 a.m.	9.00 a.m. TO 9.50 a.m.	9.50 a.m. TO 10.40 a.m.	10.40 a.m. TO 10.55 a.m.	10.55 a.m. TO 11.45 a.m.	11.45 a.m. TO 12.35 p.m.	12.35 p.m. TO 1.20 p.m.	1.20 p.m. TO 2.05 p.m.	2.05 p.m. TO 2.50 p.m.
DAY/ TIME								
MON		SSD		TECHNICAL SESSION			SSD	TEC
TUE						T&D	PEE LAB	PEE LAB
WED	PRAYER	SSD			SSD		T&D	
THU			BREAK		T&D			
FRI		LIB				SSD		T&D
SAT		T&D					SSD	SSD

S.No	Subject Code	Acronym	Name of the Subject	Branch & Semester	No of hours
1	EE 8402	T&D	Transmission & Distribution	EEE & IV	7
2	EE 6601	SSD	Solid State Drives	EEE & VI	7
3	EE 6611	PEE LAB	Power Electronics & Drives Lab	EEE & VI	3
4	EE 8412	TS LAB	Technical Seminar	EEE & IV	2
5		LIB	Library Hour	EEE & IV	1
TOTAL					20

	Prepared by	Verified by	Authorized by
Sign:			
Name:	Time Table Incharge	HD/EEE	Principal

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III YEAR NAME LIST

Department : Electrical and Electronics Engineering

S.No.	Reg. No.	Name of the Student
1.	732416105001	AMSAVENI S
2.	732416105002	ARIHARANP
3.	732416105003	BASKAR S
4.	732416105004	BOOPATHI S
5.	732416105005	DHARANI D
6.	732416105006	HARISH D
7.	732416105007	KALLALAHAR K S
8.	732416105009	KARTHIKEYAN V
9.	732416105010	KIRUBHAKARAN R
10.	732416105011	NAVEENKUMAR M
11.	732416105012	NAVEENKUMAR R
12.	732416105013	PAVITHRA M
13.	732416105014	RAJESHKUMAR M
14.	732416105015	TAMILSELVAM G
15.	732416105016	VANMATHI P
16.	732416105017	VIDHYA V
17.	732416105301	M AJITH
18.	732416105302	GUNASEKARAN S
19.	732416405501	M.CHANDHRAKUMAR


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Department of Electrical and Electronics Engineering
SUBJECT INFORMATION RECORD

Department : EEE
Subject : SOLID STATE DRIVES
Year : III
Semester : VI
Last year handled by :
Percentage of Result (last year) :
Quality Objectives : To understand Steady State operation and transient dynamics of motor load.

REFERENCES:

	Prepared By	Approved By
Sign:		
Name:	S. Deepika	
	Faculty	HD

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Faculty Name : S DEEPIKA
Department : EEE
Subject / Code : EE6601 / SOLID STATE DRIVES
Academic Year : 2018-2019

Designation : Assistant Professor
Semester / Year : VI / III

No.	Proposed		Details of Topic Covered	TA	Ref	Actual		Remark
	Date	Period				Period	Date	
UNIT I DRIVE CHARACTERISTICS								
1	19/12/2018	1-4	Electric drive Introduction	1	1	1	19.12.18	
2	20/12/2018	5	Typical load torque characteristics	1	1	4,6	22.12.18	
3	22/12/2018	4,6	Steady state stability	1	1	2	24.12.18	
4	24/12/2018	1	Component of load torque	1	1	4	9.1.19	
5	26/12/2018	4	Classification of load torque	1	1	5	9.1.19	
6	27/12/2018	5	multi quadrant Dynamics - acceleration, deceleration	1	1	7	20.12.18	
7	27/12/2018	4	multi quadrant Dynamics - starting & stopping	1	1	7	20.12.18	
8	29/12/2018	6	Equations governing motor load dynamics	1	1	4	19.12.18	
9	31/12/2018	6	Selection of motor	1	1	5	27.12.18	
UNIT II CONVERTER / CHOPPER FED DC MOTOR DRIVE								
1	2/1/2019	1	Introduction steady state analysis	1	1	6	24.12.18	
2	2/1/2019	4	Single phase half controlled bridge converter control of DC seperately excited motor	1	1	4	29.12.18	
3	3/1/2019	4	Single phase fully controlled bridge converter control of DC seperately excited motor	1	1	6	29.12.18	
4	5/1/2019	4	Three phase half controlled bridge converter control of DC seperately excited motor	1	1	2	31.12.18	
5	5/1/2019	6	Three phase full controlled bridge converter control of DC seperately excited motor	1	1	6	31.12.18	
6	6/1/2019	2	Time ratio and current limit control	1	1	4	2.1.19	
7	6/1/2019	1	Chopper Fed DC drives - first and second quadrant operation	1	1	2	7.1.19	
8	19/1/2019	4	Four quadrant operation	1	1	6	7.1.19	
9	19/1/2019	6	Chopper control for seperately excited DC motor	1	1	5	3.1.19	
10	21/1/2019	2	Chopper control for seperately excited DC series motor	1	1	5	3.1.19	
11	1/2/2019	2	Problems	1	1	6	5.1.19	
UNIT III INDUCTION MOTOR DRIVES								
1	28/1/2019	2	Introduction to induction motor	1	1	6	21.1.19	
2	28/1/2019	4	Stator voltage control	1	1	1	6.2.19	
3	30/1/2019	1	energy efficient drive - Problems	1	1	4	6.2.19	
4	31/1/2019	5	energy efficient drive	1	1	4	6.2.19	
5	2/2/2019	4	v/f control	1	1	5	7.2.19	
6	2/2/2019	6	constant airgap flux	1	1	7	9.2.19	
7	2/2/2019	5	field weakening mode	1	1	2	11.2.19	
8	7/2/2019	2-4	current fed drive			2	13.2.19	
9	7/2/2019	1	voltage fed drive	1	1	4	13.2.19	
10	7/2/2019	4	closed loop control	1	1	6	16.2.19	
11	7/2/2019	5	Problems	1	1	6	16.2.19	
UNIT IV SYNCHRONOUS MOTOR DRIVES								
1	12/2/2019	4	Introduction to synchronous motor	1	1	6	18.2.19	



(Accredited by NAAC, Under 21 and 12B status)

LESSON PLAN

Dept Name: **EEE**
 Department: **EEE**
 Course / Code: **EE6601 / SOLID STATE DRIVES**
 Academic Year: **2018-2019**

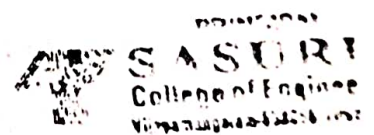
Designation: **Assistant Professor**
 Semester/ Year: **4 / IV**

S.No.	Proposed		Details of Topic Covered	TA	Ref	Actual		Remarks
	Date	Period				Slides	Days	
	11/2/2019	6	V/F control of synchronous motor	1	1	6	12-2-19	
	13/2/2019	2	Self control of synchronous motor	1		2	14-2-19	
	14/2/2019	4	Margin angle control	1		6	14-2-19	
	16/2/2019	1,4	power factor control	1		2	14-2-19	
	18/2/2019	5	permanent magnet synchronous motor	1	1	6	14-2-19	
UNIT V DESIGN OF CONTROLLERS FOR DRIVES								
	21/2/2019	1,4	Transfer function for DC motor / load and converter	1		1	6-3-19	
	28/2/2019	5	closed loop control with current and speed feedback	1		4	6-3-19	
	27/3/2019	3	armature voltage control	1		1	6-3-19	
	27/3/2019	6	field weakening mode	1	1	5	7-3-19	
	4/4/2019	2,4	Design of controllers	1		5	7-3-19	
	6/4/2019	1,4	current controller	1	1	6	9-3-19	
	7/4/2019	5	speed controller	1	1	7	9-3-19	
	9/4/2019	4,6	converter selection and characteristics	1	1	2,6	11-3-19	

Reference books (Ref):
 1. Bimal K. Dubey, Fundamentals of Electrical Drives, Narosa Publishing House, 1992
 2. M. H. Rashid, Power Electronics and AC Drives, Pearson Education, 2002
 3. Krishnan, Electric Motor & Drives: Modeling, Analysis and Control, Prentice Hall of India

- Teaching Aids (TA):**
1. Black board with Chalk
 2. Overhead Projector
 3. LCD Projector
 4. Software (field plots, Charts, Cutset Models)

Prepared by S. D. J.	Verified by <i>[Signature]</i>	Authorised by <i>[Signature]</i>
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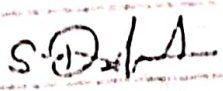
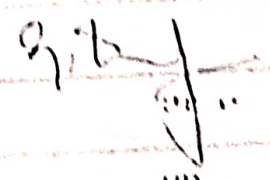
Department of Electronics and Communication Engineering

TEST PLAN FOR SUBJECT

Subject :
Semester :
Department :

Faculty :
Year :

S. No.	Description	Planned Date/Month	Actual Conducted Date / Month	Remarks
1	Internal Test-I	21.1.2019 to 28.1.2019	21.1.2019	
2	Internal Test II	27.2.2019	27.2.2019	
3	Model Examination	15.3.2019	15.3.2019	

	Prepared By	Approved By
Sign:		
Name:	S. Deepika	
	Faculty	



SASURIE
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Department of Electronics and Communication Engineering

RESULT ANALYSIS OF TEST & CORRECTIVE ACTION PLAN

Subject code & Name: EE 6601 & SSD

Date: 21.1.20

Class: IIIrd yr

Semester: VI

Exam details & date: INTERNAL 1 & 21.1.2019

Faculty :
Number of students : 19
No. of students attended : 18
No. of students absent : 1
No. of students passed : 9
No. of students failed : 9
Overall Percentage : 50.1.

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	1	5	5	6	1

	Prepared By	Approved By
Sign:		
Name:		
	Faculty	HD

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G. Tamil Selvam



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Department of Electronics and Communication Engineering

RESULT ANALYSIS OF TEST & CORRECTIVE ACTION PLAN

Subject code & Name: **EE6601 & SSD** Date: **1.3.2019**
Class: **IIIrd yr** Semester: **VI**
Exam details & date : **INTERNAL II & 27.2.2019**
Faculty :
Number of students : **19**
No. of students attended : **8**
No. of students absent : **11**
No. of students passed : **7**
No. of students failed : **1**
Overall Percentage : **88.1%**

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	-	1	1	3	3

	Prepared By	Approved By
Sign		
Name:		
	Faculty	HD

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Department of Electronics and Communication Engineering

RESULT ANALYSIS OF TEST & CORRECTIVE ACTION PLAN

Subject code & Name: EE6601 & SSD Date: 18-3-2019
 Class: II^{yr} Semester: VI
 Exam details & date: MODEL & 15-3-2019
 Faculty: _____
 Number of students: 19
 No. of students attended: 18
 No. of students absent: 1
 No. of students passed: 7
 No. of students failed: 11
 Overall Percentage: 64.1

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	8	2	2	6	—

	Prepared By	Approved By
Sign:	<u>SD</u>	<u>SD</u>
Name:		
	Faculty	HD


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G. Tamil Selvam



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Vijayamangalam, Tirupur

Department of Electronics and Communication Engineering

RESULT ANALYSIS OF TEST & CORRECTIVE ACTION PLAN

Subject code & Name: EE6601 & SSD Date: 18.3.2019
Class: IVth Semester: VI
Exam details & date: MODEL & 15.3.2019
Faculty: _____
Number of students: 19
No. of students attended: 18
No. of students absent: 1
No. of students passed: 7
No. of students failed: 11
Overall Percentage: 64.1%

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	8	2	2	6	—

	Prepared By	Approved By
Sign:		
Name:		HD
	Faculty	

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SASURIE
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Vijayamangalam, Tiruppur

(Accredited by NAAC)

CORRECTIVE ACTION REPORT

DEPARTMENT: EEE

YEAR: 10

SUBJECT: SSD

SEMESTER: VI

S.No	Internal Test	Percentage of marks	Root Cause (Metrics)	Corrective Action	Deadline date	Remarks
1	I	50 %	Slip Tests helped students to score more marks.	Students are advised to write Re-test		
2	II	88 %	Slip Test helped students to score more marks.	Retests will be conducted		
3	III (Model Examination)	64 %	Due to irregular students	Re-test will be conducted.		

	Prepared By	Approved By
Sign:	S. Deepika	
Name:	S. Deepika	
	Faculty	HD

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College of Engineering
Vijayamangalam, Tiruppur.

Department of Electrical and Electronics Engineering

QUALITY OBJECTIVE MONITORING RECORD

Department : Electrical and Electronics Engineering

Year : 19

Semester : VI

Subject : Solid State Drives

S.No	Quality Objective	InternalTest-I		InternalTest-II		Model Examination	
		Expecting result	Obtained result	Expecting result	Obtained result	Expecting result	Obtained result
1	$\geq 80\%$	$\geq 80\%$	80%	$\geq 80\%$	88%	$\geq 80\%$	64%

	Prepared By	Approved By
Sign:		
Name:	S. Deepika	
	Faculty	HD

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SASURIE
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VIJAYAMANGALAM

(ACCREDITED BY NAAC LISTED UNDER 2F AND 12B STATUS)

ASSIGNMENT SCHEDULE

DEPARTMENT : ELECTRICAL AND ELECTRONICS ENGINEERING

YEAR/SEM : 2

ACADEMIC YEAR : 2018-2019

S.NO	PARTICULARS	DATE
1	ASSIGNMENT - I	7.1.2019
2	ASSIGNMENT - II	11.2.2019
3	ASSIGNMENT - III	9.3.2019

	Prepared By
Sign	
Name	
	Faculty

Verified By
HD

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OR			
13b	Explain the closed loop speed control of VSI fed & CSI fed induction drive	CO3	S
14a	Explain the concept of open loop V/I control of synchronous motor	CO4	S
OR			
14b	Explain self controlled mode of operation of synchronous motor	CO1	S
15a	Explain vector control of Permanent Magnet synchronous Motor	CO5	S
OR			
15b	Explain self control technique of synchronous motor with constant margin control.	CO6	S
PART C			
(Answer all the Questions 1 x 15 = 15 Marks)			
16a	Derive the closed loop transfer function of converter fed separately excited DC motor	CO4	A
OR			
16b	Explain the design procedure of speed controller.	CO5	S

S. *[Signature]* 11/12/19
 Course Faculty
 (Name / Sign / Date)
 S. DFEPIKA

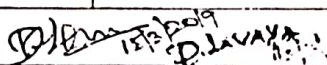
[Signature] 11/12/19
 HoD
 (Name / Sign / Date)
 M. A. Johnny


[Signature]
 Principal
 (Name / Sign / Date)
 K. Pandiarajan

Dr.M.VIJAYAKUMAR M.E., Ph.D.,
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Internal Assessment Test Answer Book

Name	M. Pavithra			Year/ Semester/Section	II & III
Register Number	732416105013	Date/Session	15.8.2019	Department	EEE
Course code	EE6601	Course Title	Solid State Drives		
Internal Assessment Test	IAT 1 <input type="checkbox"/>	IAT 2 <input type="checkbox"/>	IAT 3 <input type="checkbox"/>	Model	<input checked="" type="checkbox"/>
Name and Signature of the Invigilator with date					

Instruction to the Student: Put tick mark to the question attended in the column against question.								
Part A			Part B/ Part C				Total Marks	
Q. No.	✓	Marks	Q. NO.	✓	a	b		
					Marks	Marks		
1	✓	2	11	✓	13		13	
2	✓	2	12	✓	12		12	
3	✓	2	13			✓ 12	12	
4	✓	2	14			✓ 9	9	
5	✓	2	15			✓ 10	10	
6	✓	2	16			✓ 10	10	
7	✓	2	Grand Total				66	
8	✓	2	86				 S. DEEPIKA Name and Signature of the Examiner with date	
9	✓	2						
10	✓	2						
Total		20	Grand Total					

To be filled by the examiner							
Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	17	17	17	15	17	17	100
Marks Obtained	17	16	16	11	14	12	86
IQAC Audit - Remarks							
Marks Verified							


 Name and Signature
 Dr. M. VIJAYA KUMAR ME., Ph.D.
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Vijayamangalam, Tirupur

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Assignment Question Paper

Name of the Student: *G. Kamil Selvan*

AU Register Number: *732416105015*

Assignment - 01			Date of Issue:	30.12.2018	Marks	10
Course code	FES601	Course Title	Solid state drives			
Year	III	Semester/Section	VI	Date of Submission:	7.1.2019	

Q.No	Questions	CO
1	Three phase fully controlled converter fed DC Separately Excited Motor	CO1

S. Deepika

Name and Signature of the Faculty Incharge

S. DEEPIKA

[Signature]
HOD/EEE

[Signature]
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[Signature]
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Assignment Answer Sheet

Name of the Student: *G1. Tamil Selvan*

AU Register Number: *732416105015*

Assignment - 01			Date of Issue:	30.12.2018	Marks	10
Course code	EE601	Course Title	Solid state drives			
Year	III	Semester/Section	VI	Date of Submission:	7.1.2019	

Q.No	Questions	CO
1	Excited Motor Three phase fully controlled converter fed DC Separately Excited Motor	CO1

Mark Allocation

Rubrics	Marks Allocated	Marks obtained
Content Quality	6	6
Presentation Quality	2	2
Timely submission	2	2
Total marks	10	10

S. Deepika

Name and Signature of the Faculty Incharge

S. DEEPIKA

M. A. Johnny
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