SRK INSTITUTE OF TECHNOLOGY, Enikepadu, Vijayawada 521108,
Approved by AICTE, An Autonomous Institution, Affiliated to JNTUK, Kakinada,
Accredited with NBA& NAAC 'A' grade, ISO 9001:2015 Certified Institution

Performance Based Appraisal System (PBAS) for Assistant Professors
As per UGC Guidelines 2010
For the period 2023 to 24
Summary Sheet

Name of the Faculty: P.Tarun Naga Venkatesh
Department: Mechanical Engineering.

S.No.	Evaluation parameter	Max API Score	Minimum Score required	Self-Score	DFAC Score	IASC Score
1	Service in the College	50	----	50	50	50
2	Curricular Activities	600	----	475	475	475
3	Co-Curricular Activities	100	----	30	30	30
4	Research &Development	150	30	40	20	20
5.	Administrative and Extra-curricular activities	100	----	58	58	58
Total		1000	550	653	633	633

Signature of Faculty						
Signature(s) DFAC members	1		2		3	
Signature(s) of IASC members	1		2		3	

Note: Each item should have supporting document submitted by the faculty.

PART - A
Service in the College

Maximum API Score:: 50

1 Personal Details:

1.	Name	P.Tarun Naga Venkatesh.
2.	Present Designation	Assistant Professor
3.	Name of the Department	Mechanical Engineering.
4.	College level administrative post (if any)	
5.	Employee Identification Number	MEC13
6.	Date of Appointment to the present post	27/11/2019
7.	Date of birth	17/07/1994
8.	Address	SGR Towers, Saliped road, Poranki
9.	Contact details	E-mail : tarunmesrkit@gmail.com Mobile : 8500730551

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2 Educational qualifications (starting from degree):

Programme	Period of study	University	Marks/CGPA	Class obtained
M.Tech	2017-19	KLEF	9.8	First
B.Tech	2011-15	KLU	7.1	First

3 Experience (starting from present position):

S.No.	Designation	Institution	From	To
1.	Assistant Professor	SRKIT	27/11/2019	Till date

PART-B

PART I – Curriculum Activities

Maximum API Score: 600

1.1. Teaching weekly load allotted by the department as per time table

Semester-I		Semester-II		Total load	Average of weekly load
Name of the course	Weekly Load	Name of the course	Weekly Load		
FMHM	6	MMS	6	12	6
FEV	6	HT	6	12	6
TE lab	3	Workshop lab	6	9	5
Workshop lab	3	EG	6	9	5
Total load					42

Score details for 1.1	Maximum score	Self-score	DFAC score	IASC score
	70	70	70	70

1.2. Total lecture periods taken in the previous two semesters

Semester-I			Semester-II		
Name of the course	T/P	Score	Name of the course	T/P	Score
FMHM	62/63	29.5	MMS	55/57	28.9
FEV	60/60	30	HT	65/65	30
TE lab	33/33	30	Workshop lab	39/39	30
Average score of semester-I		29.8	Average score of semester-II		29.6
Final score = Average score of two semesters		29.7			

T: Number of lectures taken as per concerned course attendance register

P: Number of lectures proposed in the concerned course lesson plan

Score = T/P * 30

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Score details for 1.2	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

1.3. Course files (All the claimed contents should be available in the course file)

S.No	Contents of course file	Weightage points per course per semester	Maximum points per semester	Semester-I		Semester-II	
				Course Name FMHM	Course Name FEV	Course Name MMS	Course Name HT
1	Syllabus page	0.5	2	0.5	0.5	0.5	0.5
2	Lesson plan	1	4	1	1	1	1
3	Lecture Notes	3	12	3	3	3	3
4	Question bank (Unit wise)	2	8	2	2	2	2
5	Internal examination question papers with CO mapping	1	4	1	1	1	1
6	Internal examination marks copy	0.5	2	0.5	0.5	0.5	0.5
7	Internal examination CO, PO assessment	2	8	2	2	2	2
8	End Semester results copywith Analysis	1	4	1	1	1	1
9	End semester examination CO, PO assessment	2	8	2	2	2	2
10	Improvements to be brought in next time course delivery	1	4	1	1	1	1
11	Assignment questions with CO mapping	1	4	1	1	1	1
12	Course End Survey evaluation	1	4	1	1	1	1
13	Scheme of evaluation for end semester examination	3	12	3	3	3	3
14	Any other (with approval of IASC)	1	4	1	1	1	1
Maximum points		20	80	20	20	20	20
Total of Semester-I &Semester-II				40		40	
Average of Semester-I &Semester-II				40			

Score details for 1.3	Maximum score	Self-score	DFAC score	IASC score
	80	40	40	40

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1.4. External examination invigilation / evaluation duties

Nature of the Duty Performed	Points per duty	Number of duties performed		Total number of duties performed	Total points
		Semester-I	Semester-II		
External examination answer sheets evaluation	5	1	1	2	10
External examination invigilation	1	4	4	8	8
Lab external examination examiner	5	1	1	2	10
Seminar- – Internal examiner	5				
Mini Project– Internal examiner	5				
Major Project – Internal examiner	5				
Term Paper – Internal examiner	5				
Any other works*	1				
				Total points	28

*Any other works related to external examination with approval of IASC

Score details for 1.4	Maximum score	Self-score	DFAC score	IASC score
	20	15	15	

1.5. Internal examination invigilation / evaluation duties

Nature of the Duty Performed	Points per duty	Number of duties performed		Total number of duties performed	Total points
		Semester-I	Semester-II		
Internal descriptive examination answer sheets evaluation	1	4	4	8	8
Internal objective examination answer sheets evaluation	1	0	0	0	0
assignment books evaluation	1	4	4	8	8
Internal examination invigilation	1	10	12	22	22
Lab internal examination examiner	1	2	1	3	3

Score details for 1.5	Maximum score	Self-score	DFAC score	IASC score
	40	40	40	40

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1.6. Use of innovative teaching methodologies

Teaching methodology	Number of points per course per semester	Max. points per semester	Semester-I points	Semester-II points	Average points of two semesters
Power point presentations with own annotations and minimum 10 slides per course per semester	5	10	5	5	5
Visuals (Topic Related own video/simulation created)	5	10			
Entire course content uploaded in MOODLE server	10	20			
				Total points	5

Note: All teaching methodology works should be recorded in the teaching diary of concerned course attendance register and proofs should be authorized by HoD.

Score details for 1.6	Maximum score	Self-score	DFAC score	IASC score
	40	25	25	25

1.7. Remedial classes / Bridge Courses / Content beyond syllabus / Etc.

Details of item	Semester – I			Semester - II			Average of semester-I and semester-II points
	Name of the course	No. of classes taken	Semester – I points	Name of the course	No. of classes taken	Semester – II points	
Remedial classes	FMHM, FEV	10	20	MMS, HT	10	20	20
Bridge courses							
Career oriented course							
Content Beyond Syllabus	FMHM	2 Concepts	4	HT	2 Concepts	4	4
Additional experiments designed and conducted beyond curriculum							
Job oriented Certificate Courses	AUTOCAD	20	40	—	—		
						Total points	64

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Details of item	Minimum classes required	Points per class	Maximum points
Remedial classes	5	2	10
Bridge courses	5	2	10
Career oriented course	5	2	10
Content Beyond Syllabus	5 concepts	2	10
Additional experiments designed and conducted beyond curriculum	2 experiments	5	10
Job oriented Certificate Courses	10	2	20

Score details for 1.7	Maximum score	Self-score	DFAC score	IASC score
	40	30	30	30

1.8. Mentoring with proper records

Item	Semester I	Semester II	Total No. of sessions taken	Points per session	Total score
No. of counseling sessions done	5	5	10	5	50

Note: Mentoring record should be in faculty hand writing only. Otherwise don't consider.

Score details for 1.8	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

1.9 Percentage of passes

Semester – I			Semester - II		
Name of the course	Percentage of pass	Points per course	Name of the course	Percentage of pass	Points per course
FMHM	63	30	MMS	100	70
FEV	90.9	70	HT	72	40
Average points of semester-I		50	Average points of semester-II		55
Total points = Average of semester I & II points = 53					

Note: Don't include laboratory courses here.

Percentage of pass	<55%	55-64.99%	65-74.99%	75-85%	>85%
points	10	30	40	60	70

Score details for 1.9	Maximum score	Self-score	DFAC score	IASC score
	70	60	60	60

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1.10. Student feedback on teaching

Semester – I			Semester - II		
Name of the course	Feedback obtained	Points per course	Name of the course	Feedback obtained	Points per course
FMHM	4.5	60	MMS	4.5	60
FEV	4.1	50	HT	4.5	60
Average points of semester-I		55	Average points of semester-II		60
Total points = Average of semester I & II points = 58					

Note: Feedback for laboratory courses also can be included here

Feedback	<3	3 to 3.49	3.5 to 3.99	4 to 4.49	4.5 to 5
points	10	30	40	50	60

Score details for 1.10	Maximum score	Self-score	DFAC score	IASC score
	60	60	60	60

1.11 Project Guidance (Mini project / major project / seminar / term paper)

Semester – I			Semester - II		
Batch – I			Batch - I		
Title of Project:			Title of Project: Modeling and analysis of disc rotor using various materials		
Register no's of students	Grade	Score	Register no's of students	Grade	Score
			21X45A0319	A	25
			21X45A0321	A	25
			21X45A0325	A	25
			21X45A0343	A	25
Average score of Batch-1 in semester-I (B1)			Average score of Batch-1 in semester-II (B2)		25
Average score of batch-1 in two semesters (S): (B1+B2)/2 = 13					
Batch – 2			Batch - 2		
Title of Project:			Title of Project: fabrication and conversation of IC engine to pure electric vehicle		
Register no's of students	Grade	Score (S1)	Register no's of students	Grade	Score (S2)
		5	21X45A0332	A+	5
			20X41A0303	A+	
			20X41A0306	A+	
				30	
Overall score = S+S1+S2+P = 43					

P = 20 points if SCI/Scopus paper (journal / conference) published from the work of the project (This publication should not be shown under Part – 3)

Project Grade	A+	A	B	C
Points	30	25	20	15

Score details for 1.11	Maximum score	Self-score	DFAC score	IASC score
	50	40	40	40

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1.12. NPTEL/MIT/COURSERA/edx/UDACITY courses completed

Title of the course	Offered by	Duration of course with dates	Percentage of marks obtained	Points obtained	Average points of one semester	Average points of two semesters
Semester = I						
—	—	—	—	—		
Semester = II						
—	—	—	—	—		

Note: Full course of at least 6 weeks duration only to considered.
Points for a course with exam: 30*Percentage of marks obtained
Points for a course without exam: 15

Score details for 1.12	Maximum score	Self-score	DFAC score	IASC score
	30	0	0	0

1.13. Involvement of Faculty in syllabus framing (BOS)

For BOS members:
Date(s) of BOS meeting attended: 19/06/2023 Points:20
For non-BOS members:
Title of course(s) for which syllabus prepared: _____
Points: 10 for each course

Score details for 1.13	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.14 MOU's / Student Internships

Name & Regd, no. of student received internship through your guidance	Organization name	Duration of internship	Amount received by student for internship	Points
21X45A0338	Skill Dzire	1 month	NIL	
21X45A0341	Product design	1 month	NIL	
Total points				

Online Internship (including internshala): 5 points per student (Max.: 20 points)
Industry internship (offline): 20 points per student (Max.: 20 points)

Details of MOU	Validity of MOU (Mention date(s))	Internships received through MOU	Amount received by student (paid internship) for internship through MOU	Points
Total points				

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Each functional MOU: 10 points
Internship received through MOU: 10 points/student (paid internship only)
Internship received through MOU: 5 points/student (non-paid internship)

Score details for 1.14	Maximum score	Self-score	DFAC score	IASC score
	20	15	15	15

Total score of part–I

Item no.	Maximum score	Self-score	DFAC score	IASC score
1.1	70	70	70	70
1.2	30	30	30	30
1.3	80	40	40	40
1.4	20	15	15	15
1.5	40	40	40	40
1.6	40	25	25	25
1.7	40	30	30	30
1.8	30	30	30	30
1.9	70	60	60	60
1.10	60	60	60	60
1.11	50	40	40	40
1.12	30	0	0	0
1.13	20	20	20	20
1.14	20	15	15	15
Total score of part-1	600	475	475	475

Part - II Co-Curricular Activities

Max. Score: 100

2.1Membership of professional societies

Membership offered professional society	Membership number	National / International	Points
		Total points	

Note: International membership=10; National membership=5 points, Don't include online free memberships.

Score details for 2.1	Maximum score	Self-score	DFAC score	IASC score
	10	0	0	0

2.2 Departmental development of facilities

Development of facilities	Details of development undertaken	Semester–I	Semester –II	Total score
a) Laboratory infrastructure up gradation/New Experiment Setup Including MODROB (Utilization of budget)				
b) Common student facilities – Class Room Services,				

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Basic Amenities, Seminar/Common Halls etc.				
c) Addition & use of new software				
d) Any Other - authorized by IASC with the approval of Principal				
			Total score	

Principal participant = 5 points per semester; others = 2.5 points per semester

Score details for 2.2	Maximum score	Self-score	DFAC score	IASC score
	10	0	0	0

2.3 Attending or organizing various activities:
Conferences / Seminars / workshops/ FDPs / skill development course / certificate courses / industry training and other similar items

Attended / Organized	Dates From	Dates To	No of Days	Title, Place, Month & year details	Points
Organized	23/8/2023	14/9/2023	30	Product design using AUTOCAD	
Total points					

Score details for 2.3	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

2.4 Guest Lectures/webinar attended, organized or delivered

Attended / Organized / Delivered	Dates From	Dates To	Title, Place, Month & year details	Points
			Total points	

a) Guest Lectures Attended - 2 points/lecture;
b) Guest Lectures Organized - 3 points/lecture
c) Guest Lectures Delivered – 10points/lecture(at IIT's, NIT's, govt. universities)
d) Guest Lectures Delivered – 5 points/lecture (at other institutions)

Score details for 2.4	Maximum score	Self-score	DFAC score	IASC score
	10	0	0	0

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2.5 Accompanied students on industrial tours

Date(s)	Places visited	No. of days	Points
Total points			

One day trip: 5 points; More than one day trip: 10 points

Score details for 2.5	Maximum score	Self-score	DFAC score	IASC score
	10	0	0	0

2.6 Student technical events organized

Name of the event	Date(s)	Role	Points

Role(s): Department coordinator: 10 points, Event coordinator: 5 points, Others: 2.5 points

Score details for 2.6	Maximum score	Self-score	DFAC score	IASC score
	10	0	0	0

2.7 Student innovations; Guidance

Details of student innovation	Place of participation	Date(s) of participation	Points

Score details for 2.7	Maximum score	Self-score	DFAC score	IASC score
	10	0	0	0

2.8 Consultancy

Name of the company to which consultancy provided	Amount earned	Points

< Rs. 25000/- 2.5 points ; 25000 to 50000 – 5 points ; 50000 to 100000 – 7.5 points ; > 100000 – 10 points

Score details for 2.8	Maximum score	Self-score	DFAC score	IASC score
	10	0	0	0

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Total score of part- II

Item no.	Maximum score	Self-score	DFAC score	IASC score
2.1	10	0	0	0
2.2	10	0	0	0
2.3	30	30	30	30
2.4	10	0	-	-
2.5	10	0	-	-
2.6	10	0	-	-
2.7	10	0	-	-
2.8	10	0	-	-
Total score of part-II	100	30	30	30

Part – III R &D Related Contributions

Max. Score: 150 (Min. score required: 30)

3.1 Research Publications

Book / Book chapter (Indexed by SCIE / Scopus / UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names			
	Name of the book / book chapter			
	Publisher details			
	ISBN no.			
	Page no(s), Month & Year of publication			

Paper publication(s) in journals (Indexed by SCIE / Scopus / UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names	P.Tarun Naga Venkatesh		
	Name of the paper	Engineering a hybrid Air compressors integrated monitoring System		
	Publisher details	IJESR	Scopus	
	ISSN no.	2277 - 2685		
	Page no(s), Month & Year of publication	1-4, Dec & 2023		

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Score details for 3.1	Maximum score	Self-score	DFAC score	IASC score
	60	40	20	20

3.2 Sponsored Research projects

Details of investigators	Name of the project	Sanctioning agency	Amount sanctioned / applied	Date of application	Project sanctioned / result awaited	Points
					Total points	

Project amount	Sanctioned (points)	Result awaiting (points)	No. of investigators allowed
More than Rs.20 Lakhs	40	16	5
Rs.10 Lakhs – 20 Lakhs	30	12	4
Rs.5 Lakhs -10 Lakhs	20	08	2
< Rs.5.0 Lakhs	10	04	2
SAGTE projects	10	--	2

Score details for 3.2	Maximum score	Self-score	DFAC score	IASC score
	40	0	—	

3.3 Conferences / symposia papers presented

Conference proceedings (Indexed by SCIE / Scopus, UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names			
	Name of the paper			
	Conference details			
	Month & Year of conference			

Score details for 3.3	Maximum score	Self-score	DFAC score	IASC score
	20	0	—	

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3.4 Patents

Details of inventors	Title of the patent	Patent registering agency	Month and year of patent	Published / Granted	Points
				Total points	

Score details for 3.4	Maximum score	Self-score	DFAC score	IASC score
	20	0	—	—

3.5 Incubation center established

Details of incubation center	Month & Year of establishment	Points

Max points: 10; Principal coordinator: 100%; others (with active participation)=80%
Active Participation as certified by Coordinator and HOD

Score details for 3.5	Maximum score	Self-score	DFAC score	IASC score
	10*	0	—	—

* This section 3.5 can be neglected if you are getting 60 points in section 3.1

3.6 Centre of Excellence established

Details of centre of excellence	Month & Year of establishment	Points

Max points: 10; Principal coordinator: 100%; others (with active participation)=80%
Active Participation as certified by Coordinator and HOD

Score details for 3.6	Maximum score	Self-score	DFAC score	IASC score
	10	0	—	—

* This section 3.6 can be neglected if you are getting 60 points in section 3.1

3.7 Ph.D related activities

1) Ph.D. Registered (only for the year in which registered) 2.5 points
2) Ph.D. Thesis submission (only for the year in which submitted) 5 points
3) Ph.D. Thesis Awarded (only for the year of award) 7.5 points
4) If thesis submission and award occur in the same academic year 10 points

Tick relevant number

Score details for 3.7	Maximum score	Self-score	DFAC score	IASC score
	10	0	—	—

Total score of part- III

Item no.	Maximum score	Self-score	DFAC score	IASC score
3.1	60	40	20	20
3.2	40	0	—	
3.3	20	0	—	
3.4	20	0	—	
3.5	10*	0	—	

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3.6	10*	0	-	-
3.7	10	0	-	-
Total score of part-III	150	40	20	20

Section(s) 3.5 & 3.6 can be neglected if you are getting 60 points in section 3.1

PART-IV Administrative and Extra-curricular activities

Max. Score: 100

4.1 Departmental Administration

S.No.	Activity	SEM-I	SEM-II	Total points
1.	In-charge of time tables (10 /sem)	10	10	20
2.	Attendance in-charge(10/sem)			
3.	Internal marks in-charge(10/sem)			
4.	Mini / Major Project Coordinator/Review Members			
5.	Exams In-charge (10)			
6.	Library in-charge	2.5	2.5	5
7.	Lab In-charge			
8.	Discipline(class teacher)			
9.	Professional Society Related Coordinators (Based on the events conducted)/Department Association			
10.	Module / Course Coordinator			
11.	Departmental R&D Coordinator			
12.	Media Coordinator			
13.	Departmental News Letter Editor/Members			
14.	ISO (Coordinator)	2.5	2.5	5
15.	TEQIP Coordinator			
16.	Alumni Coordinator			
17.	NBA/NAAC Participation(10 /sem)	10	10	20
18.	Grievance cell			
19.	Anti-ragging Committee	2.5	2.5	5
20.	Vigilance			
21	Programme Coordinator(15 /sem)*	15		15
22	Answer script in-charge			
23	Induction day			
24	Farewell day			
25	Any Other - authorized by chairman CAS standing committee with the approval of Principal			
			Total points	70

Each activity = 5 points per year; 2.5 points per sem; Coordinator =100%; others = 50%

Score details for 4.1	Maximum score	Self-score	DFAC score	IASC score
	40	30	30	

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4.2 Institutional level administration

S.No.	Activity	SEM-I	SEM-II	Total points
1.	NBA Participation(NBA Common Criteria Preparation Coordinators)	5	5	10
2.	NAAC	5	5	10
3.	Autonomous/Examination Section			
4.	TEQIP Nodal Officers			
5.	R&D Committee Member/Paper Incentive Member			
6.	Maintenance of Central facilities (telephone, internet, electrical, water works, hostel, Sports etc.)			
7.	Career Guidance Cell	5	5	10
8.	Grievance cell anti ragging			
9.	ISO Co-ordinator			
10.	Any other such as Hostel Warden etc.,			
			Total points	30

Each activity/sem = 5 points; Coordinator=100%; others=50%

Score details for 4.2	Maximum score	Self-score	DFAC score	IASC score
	10	8	8	8

4.3 Institutional Events Organization members, Sports Participants

S.No.	Activity	SEM-I	SEM-II	Total points
1.	Annual day			
2.	Cultural activities			
3.	Sports participation			
4.	Any Other as approved by IASC and by Principal approved			
			Total points	

Each activity = 5 Points/sem;

Score details for 4.3	Maximum score	Self-score	DFAC score	IASC score
	20	0	—	—

4.4 NSS / NCC / Other Service activities

S.No.	Activity	SEM-I	SEM-II	Total points
1.	NCC / NSS activities			
2.	NSS/ NCC Coordinator(10)			
3.	Women grievance cell activities			
4.	Health camps			
5.	Blood camps			
6.	Service to poor			
7.	Service to Disabled			
8.	Charity camps etc.			
9.	Any Other as approved by			

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	IASC and by Principal approved			
			Total points	–

Each activity = 5 points/sem

Score details for 4.4	Maximum score	Self-score	DFAC score	IASC score
	10	0	–	

4.5 Training & other Misc. activities

S.No.	Activity	SEM-I	SEM-II	Points
1.	Training and placements- Departmental T&P Coordinator=20 points; others = 10 points	20	20	40
2.	Institute News letter Editorial board: 10 points; ArticleContributors:5 points(From Dept);			
3.	Material contribution to news letter/Annual Day Report/House Journal from Department Article Contributors:5 points (From Dept)			
4.	Any Other as approved by IASC and by Principal approved			
			Total points	40

Score details for 4.5	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	

Total score of part- IV

Item no.	Maximum score	Self-score	DFAC score	IASC score
4.1	40	30	30	30
4.2	10	8	8	8
4.3	20	0	–	–
4.4	10	0	–	–
4.5	20	20	20	20
Total score of part-IV	100	58	58	58

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Engineering a Hybrid Air Compressor's Integrated Monitoring System

P.Tarun Naga Venkatesh [1], U.Tanoj [2], A.Stanly Kumar [3],
Assistant Professor [1,2,3]
Department of ME
Mail Id : tarunmesrkit@gmail.com, Mail id : tanoj.a5@gmail.com, Mail id : stanlykumar.ande@gmail.com,

Abstract

Based on the refit of the air-compressor control system in a specific Shandong province mine, a hybrid air-compressors integrated monitoring system was designed. Industrial Ethernet is used to build up a communication network that operates on the air pressure concept and the same operating load rate principle. Industrial bus Provirus-DP is also supported. In addition, a PC and PLC allow for the local, remote, and network monitoring of a set of three piston air-compressors driven by an inverter and a cooling water circulation system, as well as a set of two screw air compressors controlled by a high-voltage soft starter. The system's ability to automatically adjust air compressor operation in response to changes in input air volume allows for a highly adaptable air supply. Coal mine production safety is now guaranteed, and mechanical wear on the air compressor has been greatly decreased. The distributed control of hybrid air processor group is well-suited to the system and provides tremendous benefit in the energy-saving update of the air compressor group control.

1. Introduction

The mine's pneumatic machinery and primary well unloading equipment rely on an air compressor for their power needs. It consumes around 10% of the mine's entire electrical output and operates nonstop. Its operational dependability and security directly impact production reliability and financial gains. Two screw air-compressors and three piston air-compressors make up the five air-compressors in my mine's air compressor chamber. Its controller is all that's needed to manage two-screw air-compressors, and it measures just a handful of variables. They are uncontrollable from a distance. Because of the grid's and machinery's age, the start current has a significant effect when direct full-voltage is used at start-up. The voltage of three piston air-compressors was lowered due to the usage of an autotransformer with a high current, a lack of self-protection function, a high failure rate, a huge amount of maintenance, a load-to-unload run time ratio of 10:14, and high energy consumption. Each group of five air compressors has a water-cooled cooling system and is started and stopped manually. In light of the aforementioned drawbacks of the current air-compressor control system, a hybrid model air-compressors automated monitoring system has been created with the objectives of energy savings and data integration. In addition to saving energy, The air-compressors' primary and auxiliary cooling systems may now be controlled automatically and supplied with air on demand. In order to guarantee the safety of production in coal mines, automation and dependability of the air-supply system have been enhanced.

2. Structures and Features of System Control

2.1. Design of the system

This paper proposes a novel control scheme well suited to hybrid air-compressors. Since screw air-compressors tend to be more reliable, they were chosen as the primary air-supply in this setup, with piston air-compressors serving as a backup. Atmospheric pressure Industrial Ethernet and Provirus-DP Industrial bus were used to build up the communication network, which adheres to the same operating load rate concept. In addition, a PC and PLC allow for the local, remote, and network monitoring of a single high-voltage soft starter for two-screw air compressors, a single inverter for three-piston air-compressors, and a single cooling water circulation system. The air compressors system now offers a more adaptable air supply. The data transfer capacity and open, compatible elements of the network are extensive. Siemens controllers of varying generations are able to communicate with one another and with controllers of other sorts; subsequent devices may also be set up on this network. Ethernet's connection to the enterprise's higher-level data network solves the problem of expanding systems and enables online information exchange. This kind of open communication network construction provides a new manner of distributed control and information management. The automatic monitoring of hybrid air-compressors and the equipment / digital

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Academic Year: 2023-24 **Class: II** **Semester: I**

Class Incharge: Mr. U. Tanoj **W.E.F. 02/08/2023**

Section I

Time	9:00 to 9:50	9:50 to 10:40	10:45 to 11:35	11:35 to 12:25		1:10 to 2:00	2:00 to 2:45	2:50 to 3:35	3:35 to 4:20
Period	1	2	3	4		5	6	7	8
MON	VCFT	FMHM	EITK	PT	LUNCH	KOM	CAEDP		
TUE	FMHM	PT Lab				KOM	VCFT	MOS	PT
WED	KOM	PT	VCFT	FMHM		MOS	CAEDP		
THU	MOS	D&M Lab				FMHM	PT	KOM	Library
FRI	PT	VCFT	MOS	KOM		FMHM	FMHM Lab		
SAT	MOS	KOM	VCFT	PT		VCFT	Counselling	FMHM	MOS

Vector Calculus, Fourier Transforms and PDE (M-III)	Mr. K. Basavaraju
Mechanics of Solids	Dr. A. Stanly Kumar
Fluid Mechanics & Hydraulic Machines	Mr. P. Tarun Naga Venkatesh
Production Technology	Mr. U. Tanoj
Kinematics of Machinery	Mr. V. Bala Chinalingam
Computer Aided Engineering Drawing Practice	Dr. A. Stanly Kumar / Mr. R. Karun Kumar
Fluid Mechanics & Hydraulic Machines Lab	Mr. V. Bala Chinalingam / Mr. P. Tarun Naga Venkatesh
Production Technology Lab	Mr. U. Tanoj / Ms. P. Bhagya Lakshmi.
Drafting and Modeling Lab	Ms. Y. Durga Bhavani / Mr. D. Rognatha Rao
Essence of Indian Traditional Knowledge	Mr. D. Rognatha Rao

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Academic Year: 2023-24 **Class: III** **Semester: II**

Class Incharge: Ms. P. Bhagya Lakshmi **W.E.F. 01/01/2024**

Section 1									
Time	**9:00 to 9:50**	**9:50 to 10:40**	**10:45 to 11:35**	**11:35 to 12:25**		**1:10 to 2:00**	**2:00 to 2:45**	**2:50 to 3:35**	**3:35 to 4:20**
Period	**1**	**2**	**3**	**4**		**5**	**6**	**7**	**8**
MON	DMM-II	AI&ML	HT	AE		FUEE	HT Lab		
TUE	FUEE	AE	DMM-II	FUEE		HT	CAE & CAM Lab		
WED	AI&ML	AI & ML Lab			LUNCH	AE	FUEE	Counseling	HT
THU	HT	AE	DMM-II	RM&IPR		AI&ML	M & M Lab		
FRI	RM&IPR	HT	AE	AI&ML		FUEE	DMM-II	AI&ML	Sports
SAT	AE	DMM-II	AI&ML	DMM-II		RM&IPR	FUEE	HT	Library

Heat Transfer	**Mr. P. Tarun Naga Venkatesh**
Design of Machine Members-II	**Ms. P. Bhagya Lakshmi**
Introduction to Artificial Intelligence and Machine Learning	**Dr. A. Stanly Kumar**
Automobile Engineering (PE-2)	**Mr. V. Bala Chinalingam**
Fundamentals of Utilization of Electrical Energy (OE-2)	**Mr. G. Ravi Kumar**
Heat Transfer Lab	**Ms. Y. Durga Bhavani /** **Mr. P. Tarun Naga Venkatesh**
CAE&CAM Lab	**Mr. D. Rognadha Rao /** **Mr. V. Bala Chinalingam**
Measurements & Metrology Lab	**Ms. P. Bhagya Lakshmi /** **Mr. U. Tanoj**
Artificial Intelligence and Machine Learning Lab	**Dr. Anusha**
Research Methodology and IPR	**Ms. G. Srihalitha**

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(ISO 9001:2015 Certified Institution) Anti-Ragging Squad Duties A.Y 2023-24

Anti Ragging Duties List A.Y 2023-24 II Semester

WEEK LOCATION	IN-CHARGE	MAIN GATE 09.00 – 09.45 AM 12.15 – 01.15 PM 04.15 – 04.45 PM	COLLEGE ENTRANCE 09.00 – 09.45 AM 12.15 – 01.15 PM 04.15 – 04.45 PM	NORTH GATE, CANTEEN 09.00 – 09.45 AM 12.15 – 01.15 PM 04.15 – 04.45 PM	EAST SIDE PARKING 09.00 – 09.45 AM 12.15 – 01.15 PM 04.15 – 04.45 PM	WEST SIDE WORKSHOP 09.00 – 09.45 AM 12.15 – 01.15 PM 04.15 – 04.45 PM
MON	DR. T SATYANARAYANA HOD CIVIL [illegible]	T. VISHNU PRIYA, 9440347777, ECE ,9AM, Dr. D S PHANI KISHORE, ECE, 9542976244, 04.15PM N. MARINDI, CSE, 9052864208, 12.15 PM K. NARENDRA BABU- EEE 8985280851, 09 AM, 12.15PM, 4.15PM	Dr. S SRI GOWRI HOD ECE, 7093322366 - 9AM, M. PRIYANKA,MCA,9110746638, 9 AM, 12.15PM, 4.15PM P. TARUN – ME, 9505035072, 09.00AM,12.15PM, 4.15PM	K. KRUPA, CSE, 6281397342, 09.00AM K.NAGA LAVANYA – ECE, 8125490990 12.15PM Dr.RAVI TEJ, ECE, 9441747164 – 04.15PM	BHAGYA LAKSHMI MECH 7098789942, 09AM,12.15PM, 4.15PM V. SEKHARA RAO, ECE, 9492683861- 12.15 PM,	P. MANJUSRI, MBA, 9441761443, 9 AM, 12.15PM, 4.15PM N. MARINDI, CSE, 9052864208, 04.15 PM
TUE	DR. P KISHORE HOD MECH 9000154433	Dr.RAVI TEJ, ECE, 9441747164 - 9AM, K. SANDHYA, EEE, 9959844869, 09 AM, 12.15PM, 4.15PM B.RAVI,- ECE, 8030199152 - 04.15PM	CH. RAMYA BHARATHI, CSE, 9505155141?, 09.00 AM, A. AKHILA – IT, 09 AM, 12.15PM, 8297101337	P. NAGA SRINIVASA RAO 9390673059, 09 AM, 12.15PM,4.15PM CH. PRABHAVATHI, CSE, 7075763460, 12.15 PM	B.SAI KUMAR REDDY 8106279458, CIVIL 9 AM, 12.15PM, 4.15PM K. NOHA NAMRATHA, ECE, 7995789230, 12.15 PM,	K.BABY RAMYA ,MCA, 8464842185, 09 AM,12.15PM, V. VIJAYA DURGA, CSE,7993866157, 04.15 PM
WED	DR. S SRI GOWRI HOD ECE 7093322366	CH.SATYANARAYANA REDDY – MCA, 9397122666, 09 AM, 12.15PM, 4.15PM CH. SAI SIVA DURGA, CSE, 9449042533?, 12.15 PM	G.SSRI HARSHA – EEE 8328554846, 09 AM, 12.15PM, 4.15PM CH. SAI SIVA DURGA, CSE, 9449042533?, 04.15 PM	B. CHINNI, MBA, 8247274448, 09AM, 12.15PM, 4.15P	U. TANOJ, MECH, 9642191614, 09 AM,12.15PM, 4.15PM B.RAVI,ECE, 8030199152,12.15PM	CH. PAVANI, CSE, 9177264782,09.00 AM Ms. T. MANOGNA, ECE, 7032682187-12.15 PM
THU	DR. B KRISHNAIAH HOD – MBA 8374967444	T. VISHNU PRIYA 9440347777- ECE – 09.00 AM V. SRINIVAS, 7981192934 - MBA 9 AM, 12.15PM, 4.15PM K. DURGA BHAVANI -CSE, 9949909217,9 AM, 12.15PM,	V BALA CHINA LINGAM,- MECH, 9494714606- 09.00 AM, 12.15PM, 4.15PM Dr. D. ANUSHA- CSE, 8886123576, 12.15PM, T. ANIOL CHOWDARY, ECE, 9915564869, 4.15PM	V. SIVA KUMAR, EEE, 9 AM, 12.15PM, 4.15PM 8639605262?, A. RAMYA – ECE, 6302838982 - 12.15 PM DR. K. CHAITANYA, CSE , 9550474495, 04.15 PM	E. NAGA RAJU – MCA, 9573767360, 09 AM, 12.15PM, G. SAIHITH [illegible] - CIVIL 12.15PM, 4.15PM	T. SOWJANYA, MBA, 9164019649, 09AM, 12.15PM, 4.15PM
FRI	Dr G.D.K. KISHORE HOD- IT 9494941353	Dr.A. STANLY KUMAR – ME, 9966079370, 9 AM, 12.15PM, 4.15PM K. JAIRAM, CSE,9849160138, 12.15PM, 4.15PM SLVK.JYOTHI-ECE,9966014226, 09AM	AMRITHA, MISHRA, IT, 9 AM, 12.15PM, 7416672609 D. SIRISHA, CSE, 8790670429, 09.00 AM G. RAVI KUMAR, EEE,8125542509, 09 AM, 12.15PM, 4.15PM	CH. RAJESH - CIVIL ,09 AM, 12.15PM, 4.15PM, 7386219993 M. RAMYA PRIYA – ECE, 9390797979 - 12.15 PM	K. HAREESH, MCA, 9948723118, 9.00AM, 12.15PM, Dr.DS PHANI KISHORE-ECE, 9542976244, 04.15PM	V. NARESH, MBA, 9963356?739, 09AM,12.15PM, 4.15PM
SAT	DR. A. RADHIKA, HOD CSE 9885966656	D. RAGNATHA RAO 9948970092 ,MECH, 09 AM, 12.15PM, 4.15PM O. DURGA BHAVANI – CSE, 9136220999, 12.15PM, 4.15PM T. ANIOL CHOWDARY, ECE, 9915564869, 04.15 PM	K. KIRAN – CIVIL, 7893686111, 09AM, 12.15PM, 4.15PM G.SRI LAKSHMI,IT,9885655688, 9AM, 12.15PM, N.KALAVATHI,ECE, 6304727127,4.15PM	K. VENKATESHWAR RAO, MBA, 8985264201, 09AM, 12.15PM, 4.15P V. SRI LAKSHMI -ECE 9390797979- 12.15PM	K. PAVANI - MCA 9063806364, 09 AM, 12.15PM, G.H.SUDHA RANI,CSE 9490423238,12.15 PM	M. SUPRIYA, EEE, 7382306476, 09 AM, 12.15PM, 4.15PM

- Coordinator must coordinate with other Faculty members.
- Maintain proper Discipline in the College premises.
- Unhealthy practices with in the College campus are strictly prohibited.
- Maintain a sense of decency in physical appearance (About ID-Card & Dress code).
- Students are restricted form loitering, making noise inside the College campus. .
- If any issues related to Anti Ragging Duties report to Principal Immediately.

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Principal

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DEPARTMENT OF MECHANICAL ENGINEERING

Result Analysis of III/IV B.Tech II Semester MECH 21-25 Batch (R20) AY: 2023-24

Description	No.of students Passed	Total No.of students	Percentage %
Total subject passed	11	22	50
One subject failed	6	22	27.27
Two subjects failed	0	22	0.00

Subject wise Student Pass Percentages

S.No	Subject Name	No.of Students Attempted	No.of students passed	Pass Percentage %	Faculty Name
1	HEAT TRANSFER	22	15	68.18	Mr..P.TARUN NAGA VENKATESH
2	DESIGN OF MACHINE MEMBERS-II	22	16	72.73	Ms.P.BHAGYALAKSHMI
3	INTRODUCTION TO ARTIFICIAL INTELLIGENCE & MACHINE LEARNING	21	18	85.71	Dr. A. STANLY KUMAR
4	AUTOMOBILE ENGINEERING	21	16	76.19	Mr. V. BALA CHINALINGAM
5	FUNDAMENTALS OF UTILIZATION OF ELECTRICAL ENERGY	22	19	86.36	Mr.RAVI KUMAR
6	HEAT TRANSFER LAB	22	22	100.00	Ms. Y. DURGA BHAVANI
7	CAE&CAM LAB	22	22	100.00	Mr. D. ROGNATHA RAO
8	MEASUREMENTS & METROLOGY LAB	21	21	100.00	Ms. P. BHAGYALAKSHMI
9	ARTIFICIAL INTELLIGENCE AND MACHINE LEAR	22	22	100.00	Dr.D.ANUSEHA
10	RESEARCH METHODOLOGY AND IPR	22	22	100.00	Ms .LALITHA

ME-HOD

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Department of Mechanical Engineering

Result Analysis of II/IV B.Tech II Semester MECH 23-24 Batch(R20)

Description	No.of students Passed	Total No.of students	Percentage %
Total subject passed	10	19	52.63
One subject failed	06	19	31.57
Two subjects failed	00	19	00

Subject wise Student Pass Percentages

S.No	Subject Name	No.of Students Attempted	No.of students passed	Pass Percentage %	Faculty Name
1	COMPLEX VARIABLES AND STATISTICAL METHOD	19	13	68.42	Ms. V. Prasanthi
2	MATERIAL SCIENCE & METALLURGY	19	19	100.00	Mr .P.TARUN NAGA VENKATESH
3	DYNAMICS OF MACHINERY	19	15	78.94	Mr. V. BALA CHINALINGAM
4	THERMAL ENGINEERING-I	19	13	68.42	Ms. Y. DURGA BHAVANI
5	INDUSTRIAL ENGINEERING AND MANAGEMENT	19	18	94.73	Dr. P. KISHOREKUMAR
6	MECHANICS OF SOLIDS AND METALLURGY LAB	19	19	100.00	Mr. U. TANOJ
7	MACHINE DRAWING PRACTICE	19	19	100.00	Dr. A. Stanly Kumar
8	THEORY OF MACHINES LAB	19	19	100.00	Mr. V. Bala Chinalingam
9	PYTHON PROGRAMMING LAB	19	19	100.00	Dr. A. Stanly Kumar

HOD

PRINCIPAL 25/7/24

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Anti Ragging Duties List A.Y 2023-24 II Semester

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MON	DR. T SATYANARA YANA HOD CIVIL 9885990	T. VISHNU PRIYA, 9440347777, ECE ,9 AM, Dr. D S PHANI KISHORE, ECE, 9542976244, 04.15PM N. MARINBI, CSE, 9052844208, 12.15 PM K. NARENDRA BABU- EEE 8985260851, 09 AM, 12.15PM, 4.15PM	Dr. S SRI GOWRI HOD ECE, 7093322366 - 9AM, M. PRIYANKA,MCA,9110746038, 9 AM, 12.15PM, 4.15PM P. TARUN – ME, 9505035072, 09.00AM,12.15PM, 4.15PM	K. KRUPA, CSE, 6281397342, 09.00AM K.NAGA LAVANYA – ECE, 8125490890 12.15PM Dr.RAVI TEJA, ECE, 9441747164 – 04.15PM	BHAGYA LAKSHMI MECH 7098789942, 09AM,12.15PM, 4.15PM V. SEKHARA BAU, ECE, 9492683861- 12.15 PM.	P. MANJUSRI, MBA, 9441761443, 9 AM, 12.15PM, 4.15PM N. MARINBI, CSE, 9052844208, 04.15 PM
TUE	DR. P KISHORE HOD MECH 9500154433	Dr.RAVI TEJA, ECE, 9441747164 - 9AM, S. SANDHYA, EEE, 9959846569, 09 AM, 12.15PM, 4.15PM B.RAVI,- ECE, 8030199152 - 04.15PM	CH. RAMYA BHARATHI, CSE, 9505155417., 09.00 AM, A. AKHILA – IT, 09 AM, 12.15PM, 8297101337	P. NAGA SRINIVASA RAO 9390673059, 09 AM, 12.15PM,4.15PM CH. PRABHAVATHI, CSE, 7075763460, 12.15 PM	B.SAI KUMAR REDDY 8106279388, CIVIL 9 AM, 12.15PM, 4.15PM K. NOHA NAMRATHA, ECE, 7995789230, 12.15 PM.	K.BABY RAMYA ,MCA, 8464842185, 09 AM,12.15PM, V. VIJAYA DURGA, CSE,7993066157, 04.15 PM
WED	DR. S SRI GOWRI HOD ECE 7093322366	CH.SATYANARAYANA REDDY – MCA, 9397122666, 09 AM, 12.15PM, 4.15PM CH. SAI SIVA DURGA, CSE, 9440425335, 12.15 PM	G.SRI HARSHA – EEE 8328554846, 09 AM, 12.15PM, 4.15PM CH. SAI SIVA DURGA, CSE, 9440425335, 04.15 PM	B. CHINNI, MBA, 8247274448, 09AM, 12.15PM, 4.15P	U. TANOJ, MECH, 9642191614, 09 AM,12.15PM, 4.15PM B.RAVI,ECE, 8030199152,12.15PM	CH. PAVANI, CSE, 9177264782,09.00 AM Ms. T. MANOGNA, ECE, 7032682107-12.15 PM
THU	DR. B KRISHNAIA H HOD – MBA 8374967444	T. VISHNU PRIYA 9440347777- ECE – 09.00 AM V. SRINIVAS, 7981192934 - MBA 9 AM, 12.15PM, 4.15PM K. DURGA BHAVANI –CSE, 9949909217,9 AM, 12.15PM,	V BALA CHINA LINGAM,- MECH, 9494714606- 09.00 AM, 12.15PM, 4.15PM Dr. B. ANUSHA - CSE, 8886122576, 12.15PM, T. ANJOL CHOWDARY, ECE, 9915564869, 4.15PM	V. SIVA KUMAR, EEE, 9 AM, 12.15PM, 4.15PM 8639052620, A. RAMYA – ECE, 6302838982 - 12.15 PM DR. K. CHAITANYA, CSE , 9550474455, 04.15 PM	E. NAGA RAJU – MCA, 9573767369, 09 AM, 12.15PM, G. SAHITHI 9491530699 - CIVIL 12.15PM, 4.15PM	T. SOWJANYA, MBA, 9164019649, 09 AM, 12.15PM, 4.15PM
FRI	Dr G.D.K. KISHORE HOD- IT 9494943353	Dr.A. STANLY KUMAR – ME, 9966079370, 9 AM, 12.15PM, 4.15PM K. JAIRAM, CSE,9849160138, 12.15PM, 4.15PM SLAVA JYOTHI-ECE,9966014226, 09 AM	AMRITHA, MISHRA, I T, 9 AM, 12.15PM, 7416472609 D. SIRISHA, CSE, 8790670429, 09.00 AM G. RAVI KUMAR, EEE,8125542509, 09 AM, 12.15PM, 4.15PM	CH. RAJESH – CIVIL ,09 AM, 12.15PM, 4.15PM, 7386219993 M. RAMYA PRIYA – ECE, 9390797979 - 12.15 PM	K. HAREESH, MCA, 9948723118, 9.00AM, 12.15PM, Dr.DS PHANI KISHORE-ECE, 9542976244, 04.15PM	V. NARESH, MBA, 9063356937,39, 09 AM,12.15PM, 4.15PM
SAT	DR. A. RADHIKA, HOD CSE 9885986856	D. ROGNATHA RAO 9948978092 ,MECH, 09 AM, 12.15PM, 4.15PM G. DURGA BHAVANI – CSE, 9136228999, 12.15PM, 4.15PM T. ANJOL CHOWDARY, ECE, 9915564869, 04.15 PM	K. KIRAN – CIVIL, 7995846111, 09AM, 12.15PM, 4.15PM G.SRI LAKSHMI,IT,9885655688, 9AM, 12.15PM, N.KALAVATHI,ECE, 6304727127,4.15PM	K. VENKATESHWAR RAO, MBA, 8985264201, 09AM, 12.15PM, 4.15P V. SRI LAKSHMI -ECE 9390797979- 12.15PM	K. PAVANI - MCA 9063806364, 09 AM, 12.15PM, G.HEMA RANI,CSE 9490423235,12.15 PM	M. SUPRIYA, EEE, 7382306476, 09 AM, 12.15PM, 4.15PM

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Principal

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Department of Electronics and Communication Engineering

Performance-Based Appraisal System (PBAS) for Associate Professors

A.Y:2023-24

Name of the Faculty: Dr Vishnu Priya Thotakura

S.No.	Evaluation parameter	Max API Score	Minimum Score required	Self-Score	DFAC Score	IASC Score
1	Service in the College	50	----	50	50	50
2	Curricular Activities	400	----	380·85	380·85	380·85
3	Co-Curricular Activities	150	----	80	80	80
4	Research &Development	250	50	30	30	30
5.	Administrative and Extra-curricular activities	150	----	95	95	95
Total		1000	550	635·85	635·85	635·85

Signature of faculty	T. Priya		
Signature(s) DFAC members	1 S Sri Gowri	2 NP	3 DRT
Signature(s) of IASC members	1	2 S Sri Gowri	3 T.

PART - A
Service in the College

Maximum API Score:: 50

1 Personal Details:

1.	Name	Dr T.Vishnu Priya
2.	Present Designation	Assoc. Professor
3.	Name of the Department	ECE
4.	College level administrative post (if any)	Academic & BoS member
5.	Employee Identification Number	ECE-04
6.	Date of Appointment to the present post	Dec 2022
7.	Date of birth	10-08-1979
8.	Address	SRK Institute of Technology Enikepadu, Vijayawada -08.
9.	Contact details	E-mail : thotakurvishnupriya999@gmail.com Telephone : 9[illegible] Mobile :

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2 **Educational qualifications (starting from degree):**

Programme	Period of study	University	Marks/CGPA	Class obtained
M.Sc	1999-2001	ANU, Guntur	66-1.	First
M.Tech	2006-2008	ANU, Guntur	72-1.	First
Ph.D	2017-2022	VIT-AP University		

3 **Experience (starting from present position):**

S.No.	Designation	Institution	From	To
1.	Associate Professor	SRKIT, VJA	Dec 2022	Till date
2.	Assistant Professor	SRKIT, VJA	Jun2008	Dec 2022
3.	lecturer	Maris Stella College	2004	2006
4	Associate lecturer	Krishnaveni Exhibition Society polytechnic for Women	2002	2003

PART-B
PART I – Curriculum Activities

Maximum API Score: 400

1.1. Teaching weekly load allotted by the department as per time table

Semester-I		Semester-II		Total load	Average of weekly load
Name of the course	Weekly Load	Name of the course	Weekly Load		
EMI -I	6	PP - I	6		
EMI - II	6	PP - II	6		
PP lab	4	DSP-I	6		
DS through JAVA lab	8	DSP-II	6	24+24	24
	24	Total load	24		

Score details for 1.1	Maximum score	Self-score	DFAC score	IASC score
	50	50	50	50

1.2. Total lecture periods taken in the previous two semesters

Semester-I			Semester-II		
Name of the course	T/P	Score	Name of the course	T/P	Score
EMI -I	66/70	18.85	Python Programming -I	65/70	18.51
EMI - II	74/70	20	PP - II	63/70	18
		38.85			36.51

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Average score of semester-I	19.42	Average score of semester-II	18.285
Final score = Average score of two semesters	18.85		

T: Number of lectures taken as per concerned course attendance register
P: Number of lectures proposed in the concerned course lesson plan
Score = T/P * 20

Score details for 1.2	Maximum score	Self-score	DFAC score	IASC score
	20	18.85	18.85	18.85

1.3. Course files (All the claimed contents should be available in the course file)

S.No	Contents of course file	Weightage points per course per semester	Maximum points per semester	Semester-I		Semester-II	
				Course Name EMI-I	Course Name EMI-II	Course Name PP-I	Course Name PP-II
1	Syllabus page	0.5	1.5	0.5	0.5	0.5	0.5
2	Lesson plan	1	3	1	1	1	1
3	Lecture Notes	3	9	3	3	3	3
4	Question bank (Unit wise)	2	6	2	2	2	2
5	Internal examination question papers with CO mapping	1	3	1	1	1	1
6	Internal examination marks copy	0.5	1.5	0.5	0.5	0.5	0.5
7	Internal examination CO, PO assessment	2	6	2	2	2	2
8	End Semester results copy with Analysis	1	3	1	1	1	1
9	End semester examination CO, PO assessment	2	6	2	2	2	2
10	Improvements to be brought in next time course delivery	1	3	1	1	1	1
11	Assignment questions with CO mapping	1	3	1	1	1	1
12	Course End Survey evaluation	1	3	1	1	1	1
13	Scheme of evaluation for end	3	9	3	3	3	3

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	semester examination						
14	Any other (with approval of IASC)	1	3	1	1	1	1
Maximum points		20	60	20	20	20	20
Total of Semester-I &Semester-II				40		40	
Average of Semester-I &Semester-II				80			

Score details for 1.3	Maximum score	Self-score	DFAC score	IASC score
	60	60	60	60

1.4. External examination invigilation / evaluation duties

Nature of the Duty Performed	Points per duty	Number of duties performed		Total number of duties performed	Total points
		Semester-I	Semester-II		
External examination answer sheets evaluation	5	2	2	4	20
External examination invigilation	1	6	6	12	12
Lab external examination examiner	5		1	1	5
Seminar- – Internal examiner	5	0	0	0	0
Mini Project– Internal examiner	5	0	0	-	-
Major Project – Internal examiner	5		2	2	10
Term Paper – Internal examiner	5	1	1	2	10
Any other works*	1	2	2	4	4
				Total points	61

*Any other works related to external examination with approval of IASC

Score details for 1.4	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.5. Internal examination invigilation / evaluation duties

Nature of the Duty Performed	Points per duty	Number of duties performed		Total number of duties performed	Total points
		Semester-I	Semester-II		
Internal descriptive exam	1	6	6	12	12

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answer sheets evaluation					
Internal objective exam answer sheets evaluation	1	online			
assignment books evaluation	1	10	10	20	20
Internal exam invigilation	1	10	10	10	10
Lab internal examiner	1	1		1	1

Score details for 1.5	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.6. Use of innovative teaching methodologies

Teaching methodology	Number of points per course per semester	Max. points per semester	Semester-I points	Semester-II points	Average points of two semesters
Power point presentations with own annotations and minimum 10 slides per course per semester	5	10	10	10	10
Visuals (Topic Related own video/simulation created)	5	10	10	10	10
Entire course content uploaded in MOODLE server	10	20	—	—	—
				Total points	

Note: All teaching methodology works should be recorded in the teaching diary of concerned course attendance register and proofs should be authorized by HoD.

Score details for 1.6	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.7. Remedial classes / Bridge Courses / Content beyond syllabus / Etc.

Details of item	Semester – I	Semester - II	Average

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	Name of the course	No. of classes taken	Semester – I points	Name of the course	No. of classes taken	Semester – II points	of semester-I and semester-II points
Remedial classes							
Bridge courses							
Career oriented course							
Content Beyond Syllabus	EMI-I & II	5	10	Python Programming	5	10	20
Additional experiments designed and conducted beyond curriculum							
Job oriented Certificate Courses							
						Total points	

Details of item	Minimum classes required	Points per class	Maximum points
Remedial classes	5	2	10
Bridge courses	5	2	10
Career oriented course	5	2	10
Content Beyond Syllabus	5 concepts	2	10
Additional experiments designed	2 experiments	5	10

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and conducted beyond curriculum			
Job oriented Certificate Courses	10	1	10

Score details for 1.7	Maximum score	Self-score	DFAC score	IASC score
	10	7	7	7

1.8. Mentoring with proper records

Item	Semester I	Semester II	Total No. of sessions taken	Points per session	Total score
No. of counseling sessions done	4	4	8	5	40

Note: Mentoring record should be in faculty hand writing only. Otherwise don't consider.

Score details for 1.8	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.9 Percentage of passes

Semester – I			Semester - II		
Name of the course	Percentage of pass	Points per course	Name of the course	Percentage of pass	Points per course
EMI-I	89.72	30	PP-I	RA	
EMI-II	81.25	25	PP-II	RA	
Average points of semester-I		55	Average points of semester-II		
Total points = Average of semester I & II points =					

Note: Don't include laboratory courses here.

Percentage of pass	<55%	55-64.99%	65-74.99%	75-85%	>85%
points	10	15	20	25	30

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Score details for 1.9	Maximum score	Self-score	DFAC score	IASC score
	30	25	25	25

1.10. Student feedback on teaching

Semester – I			Semester - II		
Name of the course	Feedback obtained	Points per course	Name of the course	Feedback obtained	Points per course
EMI-I	92.29	(4.6) 30	PP-I	95.7	4.785 30
EMI-II	95.5	(4.775) 30	PP-II	96.2	4.81 30
Average points of semester-I		30	Average points of semester-II		30
Total points = Average of semester I & II points = 30					

Note: Feedback for laboratory courses also can be included here

Feedback	<3	3 to 3.49	3.5 to 3.99	4 to 4.49	4.5 to 5
points	10	15	20	25	30

Score details for 1.10	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

1.11 Project Guidance (Mini project/major project/seminar/term paper)

Semester – I			Semester - II		
Batch – 1			Batch - 1		
Title of Project:			Title of Project: Data Center Security using Different Protocols		
Register no's of students	Grade	Score	Register no's of students	Grade	Score
			20KUS A0401	A+	30

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			20KU1A0442	A+	30
			20KU1A0435	A+	30
			20KU1A0408	A	25
Average score of Batch-1 in semester-I (B1)			Average score of Batch-1 in semester-II (B2)		
Average score of batch-1 in two semesters (S): (B1+B2)/2 =					
Batch – 2			Batch - 2		
Title of Project:			Title of Project: Application of AI CHATBOT Using GRADIO Intufaces for Human Mental Health chatbot		
Register no's of students	Grade	Score (S1)	Register no's of students	Grade	Score (S2)
		5	20KU1A0464	A+ 30	5
			20KU1A0465	A+ 30	
			20KU1A0463	A+ 30	
			20KU1A0462	A+ 30	
			21KU5A0423	A+ 30	
Overall score = S+S1+S2+P =					

P = 20 points if SCI/Scopus paper (journal / conference) published from the work of theproject (This publication should not be shown under Part – 3)

Project Grade	A+	A	B	C
Points	30	25	20	15
Score details for 1.11	Maximum score	Self-score	DFAC score	IASC score
	50	50	50	50

1.12. NPTEL/MIT/COURSERA/edx/UDACITY courses completed

Title of the course	Offered by	Duration of course	Percentage of marks	Points obtained	Average points of one	Average points of two

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		with dates	obtained		semester	semesters
Semester = I						
Semester = II						
Python for Data Scienu.	NPTEL	4 Weeks	Jan-Apr 2024			
		65.1	13			13.

Note: Full course of at least 6 weeks duration only to considered.
Points for a course with exam: 20*Percentage of marks obtained
Points for a course without exam: 10

Score details for 1.12	Maximum score	Self-score	DFAC score	IASC score
	20	10	10	10

1.13. Involvement of Faculty in syllabus framing (BOS)
For BOS members:
Date(s) of BOS meeting attended: 10-7-2024 Points:20
For non-BOS members:
Title of course(s) for which syllabus prepared: II B.Tech ECE & II B.Tech EVT
Points: 10 for each course

Score details for 1.13	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.14 MOU's / Student Internships

Name & Regd, no. of student received internship through your guidance	Organization name	Duration of internship	Amount received by student for internship	Points
Eduskills	Eduskills	8 Months		20
	IBM	8 Weeks		20

AICTE

L4G
Generative AI Course.

20

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Total points	60

Online Internship (including internshala): 5 points per student (Max.: 20 points)
Industry internship (offline): 15 points per student (Max.: 30 points)

Details of MOU	Validity of MOU (Mention date(s))	Internships received through MOU	Amount received by student (paid internship) for internship through MOU	Points
Total points				

Each functional MOU: 10 points
Internship received through MOU: 10 points/student (paid internship only)
Internship received through MOU: 5 points/student (non-paid internship)

Score details for 1.14	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

Total score of part–I

Item no.	Maximum score	Self-score	DFAC score	IASC score
1.1	50	50	50	50
1.2	20	18.85	18.85	18.85
1.3	60	60	60	60
1.4	20	20	20	20
1.5	20	20	20	20
1.6	20	20	20	20
1.7	10	7	7	7
1.8	20	20	20	20

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1.9	30	25	25	25
1.10	30	30	30	30
1.11	50	50	50	50
1.12	20	10	10	10
1.13	20	20	20	20
1.14	30	30	30	30
Total score of part-I	400	380.85	380.85	380.85

Part - II Co-Curricular Activities

Max. Score: 150

2.1Membership of professional societies

Membership offered professional society	Membership number	National / International	Points
IETE	F-503769	National	5
SIFRE	SIFRE/2022/125	National	5
		Total points	

Note: International membership=10; National membership=5 points, Don't include online free memberships.

Score details for 2.1	Maximum score	Self-score	DFAC score	IASC score
	10	10	10	10

2.2 Departmental development of facilities

Development of facilities	Details of development undertaken	Semester–I	Semester – II	Total score
a) Laboratory infrastructure up gradation/New Experiment Setup Including MODROB (Utilization of budget)				
b) Common student facilities – Class Room Services,				

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Basic Amenities, Seminar/Common Halls etc.				
c) Addition & use of new software	Google Colab with GRADIO Interface	4	5	9
d) Any Other - authorized by IASC with the approval of Principal				
			Total score	

Principal participant = 5 points per semester; others = 2.5 points per semester

Score details for 2.2	Maximum score	Self-score	DFAC score	IASC score
	10	5	5	5

2.3 Attending or organizing various activities:
Conferences / Seminars / workshops/ FDPs / skill development course / certificate courses / industry training and other similar items

	Attended / Organized	Dates From	Dates To	No of Days	Title, Place, Month & year details	Points
(1)	Organized	30 Mar 2024		1	Seminar on Securing the Data with New Strategies & Best Practices	10
(2)	~~Attended~~ (4) FDPs					30
Total points						

Maximum points for attending various events: 30
Maximum points for organizing various events: 30

Score details for 2.3	Maximum score	Self-score	DFAC score	IASC score
	60	40	40	40

2.4 Guest Lectures/webinar attended, organized or delivered

Attended / Organized / Delivered	Dates From	Dates To	Title, Place, Month & year details	Points
Delivered	11/3/2024		Online lecture on Sensitization Program on Higher Studies Organized by Department of ECE EGS Pillay Engineering College Nagapatnam.	10
			Total points	

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Score details for 2.4	Maximum score	Self-score	DFAC score	IASC score
	20	10	10	10

2.5 Accompanied students on industrial tours

Date(s)	Places visited	No. of days	Points
–	–	–	–
Total points			

One day trip: 5 points; More than one day trip: 10 points

Score details for 2.5	Maximum score	Self-score	DFAC score	IASC score
	10	–	–	–

2.6 Student technical events organized

Name of the event	Date(s)	Role	Points
Paper Presentation in Explorer Meet 2k24	6 Mar 2024	Coordinator	5

Role(s): Department coordinator: 10 points, Event coordinator: 5 points, Others: 2.5 points

Score details for 2.6	Maximum score	Self-score	DFAC score	IASC score
	10	5	5	5

2.7 Student innovations; Guidance

Details of student innovation	Place of participation	Date(s) of participation	Points
Guided a Project on	JNTUK – 4th Place 27th & 28		
"Voice Based Medicine Reminder"	IIIT Nuzvid 3rd Place Mar 2024 Techzite-24 13-14 April 2024		
Guided Poster Presentation on 'Tesla Dojo'	CR Reddy College of Engineering	13th April 2024.	

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Score details for 2.7	Maximum score	Self-score	DFAC score	IASC score
	10	10	10	10

2.8 Consultancy

Name of the company to which consultancy provided	Amount earned	Total amount	Points

< Rs. 25000/- 2.5 points ; 25000 to 50000 – 5 points ; 50000 to 100000 – 7.5 points ; 100001 1000000 – 10 points; more than 1000000 – 20 points

Score details for 2.8	Maximum score	Self-score	DFAC score	IASC score
	20	–	–	–

Total score of part- II

Item no.	Maximum score	Self-score	DFAC score	IASC score
2.1	10	10	10	10
2.2	10	5	5	5
2.3	60	40	40	40
2.4	20	10	10	10
2.5	10	–	–	–
2.6	10	5	5	5
2.7	10	10	10	10
2.8	20	–	–	–
Total score of part-II	150	80	80	80

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Part – III R &D Related Contributions

Max. Score: 250 (Min. score required: 50)

3.1 Research Publications

Book / Book chapter (Indexed by SCIE / Scopus / UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names		—	—
	Name of the book / book chapter	—		
	Publisher details			
	ISBN no.			
	Page no(s), Month & Year of publication	—		

Points: Book: SCIE - 50, Scopus – 40, UGC – 30
Points: Book chapter: SCIE - 40, Scopus – 30, UGC – 20

Paper publication(s) in journals (Indexed by SCIE / Scopus / UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
	—			
1	Author(s) names		—	—
	Name of the paper	—		
	Publisher details			
	ISSN no.			

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	Page no(s), Month & Year of publication	—	—	—

Score details for 3.1	Maximum score	Self-score	DFAC score	IASC score
	80	—	—	—

3.2 Sponsored Research projects

Details of investigators	Name of the project	Sanctioning agency	Amount sanctioned / applied	Date of application	Project sanctioned / result awaited	Points
		—	—	—	—	—
—					Total points	

Project amount	Sanctioned (points)	Result awaiting (points)	No.of investigators allowed
More than Rs.20 Lakhs	40	12	5
Rs.10 Lakhs – 20 Lakhs	30	09	4
Rs.5 Lakhs -10 Lakhs	20	06	2
< Rs.5.0 Lakhs	10	03	2
SAGTE projects	10	--	2

Score details for 3.2	Maximum score	Self-score	DFAC score	IASC score
	70	—	—	—

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3.3 Conferences / symposia papers presented

Conference proceedings (Indexed by SCIE / Scopus, UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1)	White spot Syndrome Detection in shrimp using Neural Network model.			
2)	Hierarchial Sugeno-FIS based Multi-hop Routing Protocol for Health Monitoring in WBANS			
1	Author(s) names	K Venkatesari, Vishnu Priya Thotakura, S Senthilkumar, L Ramachandran, V Lakshmi Praba, M Chinnadurai	scopus	
	Name of the paper			
	Conference details	BVICAM 24 11th International Conference on Computing for Sustainable Global development	IGGE	
	Month & Year of conference	9th to 11 Feb 2024.		

Score details for 3.3	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

3.4 Patents

Details of inventors	Title of the patent	Patent registering agency	Month and year of patent	Published / Granted	Points
	—		—		
				Total points	

Score details for 3.4	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

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3.5 Incubation center established

Details of incubation center	Month & Year of establishment	Points

Max points: 10; Principal coordinator: 100%; others (with active participation)=80%
Active Participation as certified by Coordinator and HOD

Score details for 3.5	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

3.6 Centre of Excellence established

Details of centre of excellence	Month & Year of establishment	Points

Max points: 10; Principal coordinator: 100%; others (with active participation)=80%
Active Participation as certified by Coordinator and HOD

Score details for 3.6	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

3.7 Ph.D related activities

Ph.D awarded under your guidance 10 points

Details of scholar	Awarding university	Date & month of Ph.D award

Score details for 3.7	Maximum score	Self-score	DFAC score	IASC score
	10			

Total score of part- III

Item no.	Maximum score	Self-score	DFAC score	IASC score
3.1	80	—	—	—

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3.2	70			
3.3	30	30	30	30
3.4	20			
3.5	20			
3.6	20			
3.7	10			
Total score of part-III	250	30	30	30

PART-IV Administrative and Extra-curricular activities

Max. Score: 150

4.1 Departmental Administration

S.No.	Activity	SEM-I	SEM-II	Total points
1.	In-charge of time tables (10 /sem)			
2.	Attendance in-charge(10/sem)			
3.	Internal marks in-charge(10/sem)	10	10	20
4.	Mini / Major Project Coordinator/Review Members		5	5
5.	Exams In-charge (10)			
6.	Library in-charge			
7.	Lab In-charge	2.5	2.5	5
8.	Discipline(class teacher)	2.5	2.5	5
9.	Professional Society Related Coordinators (Based on the events conducted)/Department Association			
10.	Module / Course Coordinator			
11.	Departmental R&D Coordinator			
12.	Media Coordinator			
13.	Departmental News Letter Editor/Members			
14.	ISO (Coordinator)			
15.	TEQIP Coordinator			
16.	Alumni Coordinator			
17.	NBA/NAAC Participation(10 /sem)	10	10	20
18.	Grievance cell			
19.	Anti-ragging Committee	2.5	2.5	5
20.	Vigilance			
21	Programme Coordinator(15 /sem)*			
22	Answer script in-charge			

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23	Induction day			
24	Farewell day			
25	Any Other - authorized by chairman CAS standing committee with the approval of Principal			
			Total points	60

Each activity = 5 points per year; 2.5 points per sem; Coordinator =100%; others = 50%

Score details for 4.1	Maximum score	Self-score	DFAC score	IASC score
	40	40	40	40

4.2 Institutional level administration

S.No.	Activity	SEM-I	SEM-II	Total points
1.	NBA Participation(NBA Common Criteria Preparation Coordinators)	5	5	10
2.	NAAC			
3.	Autonomous/Examination Section	5	5	10
4.	TEQIP Nodal Officers			
5.	R&D Committee Member/Paper Incentive Member			
6.	Maintenance of Central facilities (telephone, internet, electrical, water works, hostel, Sports etc.)			
7.	Career Guidance Cell			
8.	Grievance cell anti ragging	2.5	2.5	5
9.	ISO Co-ordinator			
10.	Any other such as Hostel Warden etc.,			
			Total points	35

Each activity/sem = 5 points; Coordinator=100%; others=50%

Score details for 4.2	Maximum score	Self-score	DFAC score	IASC score
	50	25	25	25

4.3 Institutional Events Organization members, Sports Participants

S.No.	Activity	SEM-I	SEM-II	Total points
1.	Annual day		5	5
2.	Cultural activities		5	5
3.	Sports participation		5	15
4.	Any Other as approved by IASC and by Principal approved		5	5
			Total points	30

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Each activity = 5 Points/sem;

Score details for 4.3	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

4.4 NSS / NCC / Other Service activities

S.No.	Activity	SEM-I	SEM-II	Total points
1.	NCC / NSS activities			
2.	NSS/ NCC Coordinator(10)			
3.	Women grievance cell activities			
4.	Health camps			
5.	Blood camps			
6.	Service to poor			
7.	Service to Disabled			
8.	Charity camps etc.			
9.	Any Other as approved by IASC and by Principal approved	—	—	—
			Total points	

Each activity = 5 points/sem

Score details for 4.4	Maximum score	Self-score	DFAC score	IASC score
	10	—	—	—

4.5 Training & other Misc. activities

S.No.	Activity	SEM-I	SEM-II	Points
1.	Training and placements- Departmental T&P Coordinator=20 points; others = 10 points	—	—	—
2.	Institute News letter Editorial board: 10 points; ArticleContributors:5 points(From Dept);			
3.	Material contribution to news letter/Annual Day Report/House Journal from Department ArticleContributors:5 points(From Dept)			
4.	Any Other as approved by IASC and by Principal approved	—	—	—
			Total points	

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Score details for 4.5	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

Total score of part- IV

Item no.	Maximum score	Self-score	DFAC score	IASC score
4.1	40	40	40	40
4.2	50	25	25	25
4.3	30	30	30	30
4.4	10	-	-	-
4.5	20	-	-	-
Total score of part-IV	150	95	95	95

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A.Y – 2023-24

Semester-I

Dr T Vishnu Priya

Time	9:00 to 9:50	9:50 to 10:40	10:45 to 11:35	11: 35 to 12:25		1:10 to 2:00	2:00 to 2:45	2:50 to 3:35	3:35 to 4:20
Period	1	2	3	4	L	5	6	7	8
MON				EMI-I	U	EMI-II	DS THROUGH JAVA LAB		
TUE	PYTHON PROGRAMMING LAB				N		EMI-I		EMI-II
WED			EMI-II		C	EMI-I		EMI-I	
THU	EMI-I		EMI-II		H			EMI-II	
FRI	DS THROUGH JAVA LAB								
SAT			EMI-II				EMI-I		

Signature of Faculty: TVP Signature of HOD:

Semester-II

Dr T Vishnu Priya

Time	9:00 to 9:50	9:50 to 10:40	10:45 to 11:35	11: 35 to 12:25		1:10 to 2:00	2:00 to 2:45	2:50 to 3:35	3:35 to 4:20
Period	1	2	3	4	L	5	6	7	8
MON		PP-I			U		PP-I		
TUE	PP-II		PP-I		N		DSP LAB-I		
WED		PP-II		PP-II	C		DSP LAB-II		
THU		DSP LAB-II			H	PP-I		PP-II	
FRI		DSP LAB-I					PP-I		
SAT			PP-II			PP-I		PP-II	

Signature of Faculty: TVP Signature of HOD:

SRK INSTITUTE OF TECHNOLOGY

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APPROVED BY AICTE, NEW DELHI | PERMANENTLY AFFILIATED TO JNTUK | CERTIFIED BY ISO 9001:2015
ENIKEPADU, VIJAYAWADA- 521108 Ph. : 0866 2843839

Securing the Data Center Network: Strategies and Best Practices

SEMINAR

M.NEELIMA HIMABINDU

IT ADMIN APSDMA, REVENUE(DM) DEPARTMENT - STATE GOVERNMENT , EX-IT MANAGER ESIC(CENTRAL GOVERNMENT)

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DATE
30 March, 2024

TIME
10:30 AM

Sensitization Program on Higher Studies

Organized by

Department of Electronics and Communication Engineering

E.G.S. Pillay Engineering College, Nagapattinam – 611002

Resource person(s)

1. Dr. T.Vishnu Priya, ASP/ECE, SRK Institute of Technology, Enikepadu, Vijayavada, Andhra Pradesh 521108.
2. Mr. T. Senthil Kumar, AP/ECE, M.Kumarasamy College of Engineering, Karur, Tamilandu, India – 639113.

Date: 11.03.2024

Beneficiary: 3rd and 4th year students from ECE

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Contents

- Introduction
- Importance of Higher Education
- Challenges Faced by Students
- Exploring Academic Pathways
- Financial Aid and Scholarships
- Mentorship and Guidance
- Building a Support Network
- Career Readiness and Skill Development
- The Future of Higher Education
- Conclusion

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution)

Approved by AICTE, New Delhi, Permanently Affiliated to JNTUK, Kakinada, Accredited by NBA, NAAC (A+), Recognized by UGC Under Section 2f and 12B)

Aditya Nagar, ADB Road, Surampalem, Kakinada-533 437

Certificate of Participation

This is to certify that Dr. Vishnu Priya Thotakura , Associate Professor *from* Srk Institute of Technology *has participated in One-Week Online Faculty Development Program on "Enhancing Faculty Expertise: Communication and Signal/Image Processing (EFECSIP-2023)" organized by Department of Electronics and Communication Engineering, Aditya College of Engineering & Technology during 10th – 15th July 2023.*

Dr. Venkata Lalitha Natla	Mrs. P.A.Sravanthi	Dr. R. V. V. Krishna	Dr. Dola Sanjay S.
Coordinator	*Coordinator*	*Convener, HoD-ECE*	Principal

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VIGNAN'S NIRULA
INSTITUTE OF TECHNOLOGY AND SCIENCE FOR WOMEN

Approved by AICTE New Delhi & Affiliated to JNTU Kakinada
An ISO 9001:2019 Certified Institution
Peda Palakaluru, Guntur-522009, Andhra Pradesh

Department of Electronics and Communication Engineering

CERTIFICATE OF PARTICIPATION

This is to certify that Dr VISHNU PRIYA THOTAKURA, faculty of SRK INSTITUTE OF TECHNOLOGY has participated in "A One Week National Level Faculty Development Program on Recent Advances in Electronics and Communication Engineering – An approach through AI & ML" during 21st to 26th August 2023.

Dr. G. Sandhya
HOD ECE

Dr. P. Radhika
PRINCIPAL

Dept. of CSE
JNTUK UCEN

BRAIN O VISION

CERTIFICATE OF PARTICIPATION

PROUDLY PRESENTED TO

VISHNU PRIYA THOTAKURA

SRK INSTITUTE OF TECHNOLOGY

has successfully participated in the

One Week National Level Faculty Development Program on Cloud Infrastructure (AWS)

organized by **Dept. of CSE, JNTUK University College of Engineering Narasaraopet , Andhra Pradesh**

in collaboration with **Brainovision Solutions India Pvt Ltd**

and **All India Council for Technical Education (AICTE)**

During the period of **21st to 25th August 2023.**

We commend your dedication to enhancing your knowledge in

cloud infrastructure and AWS technologies.

Your active participation and engagement during the program have contributed to its success.

CERTIFICATE ID:
B23NFDPCC1574

GANESH NAG DODDI
Founder & CEO
Brainovision Solutions India Pvt Ltd

DR. SIVA RAMA KRISHNA T.
Coordinator & HoD-CSE
JNTUK UCEN

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PROF. CH. SRINIVASA RAO
Principal
JNTUK UCEN

DR. BUDDHA CHANDRASHEKHAR
Chief Coordinating Officer
All India Council for Technical Education

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Foundation for Research and Education

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Tiruchengode-637211, Namakkal-Dt, Tamil Nadu, India

SIFRE

e-Certificate of Recognition

This is to certify that Prof/Dr/Mr/Ms **Dr VISHNU PRIYA THOTAKURA , ASSOCIATE PROFESSOR OF ECE, SRK INSTITUTE OF TECHNOLOGY** has actively participated in " 5 DAYS ONLINE WORKSHOP ON SPSS IN RESEARCH " organized by Star International Foundation for Research and Education on 26.12.2023 to 30.12.2023.

on 30-12-2023

Certificate ID GILVVO-CE001380

Dr.S. Sekar
Founder / Managing Trustee

PRINCIPAL
SRK INSTITUTE OF TECHNOLOGY
ENIKEPADU, VIJAYAWADA-521 108.

APITA

BLACKBUCKS
Professional Studies

Certificate ID: BBFDP2324000198

This is to certify that

Dr. Vishnu Priya Thotakura

has successfully completed the course requirements for Faculty Development Program on Large Language Models in Artificial Intelligence from 04 Oct 2023 - 07 Oct 2023 jointly conducted by Andhra Pradesh Information Technology Academy, a Unit of Department of IT & ES, Government of Andhra Pradesh and Blackbuck Engineers Pvt Ltd.

DR RAMA KOTA REDDY
CEO, APITA

ANURADHA THOTA
CEO, BLACKBUCKS

PRINCIPAL
SRK INSTITUTE OF TECHNOLOGY
ENIKEPADU, VIJAYAWADA-521 108.

EXCELR
Raising Excellence

Skill AP
APSSDC

Certificate Of Participation

Awarded To

Vishnu Priya Thotakura

Participated in 10 Hours National Faculty Development Program on
Deep Learning and Artificial Intelligence
organized by Andhra Pradesh State Skill Development Corporation (APSSDC) in Collaboration with ExcelR Edtech Pvt. Ltd.
Date: 26th Feb to 1st March 2024.

Cert No: EXCELR-FDP-65477/05032024

Ram Tavva
CEO, ExcelR Edtech Pvt. Ltd.

Dr. Gujjula Ravi
Chief General Manager-Technical, APSSDC

Dr. Vinod Kumar V.
IAS, Managing Director & Chief Executive Officer, APSSDC

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KAVALI – 524201, S.P.S.R Nellore Dist., A.P., India.

VIT-AP UNIVERSITY

CERTIFICATE OF PARTICIPATION

This certificate is presented to

Dr VISHNU PRIYA THOTAKURA

of

SRK INSTITUTE OF TECHNOLOGY

for the successful completion of one week Faculty Development Program (FDP) on "**OBE & NEP 2020**", during 10th to 14th June 2024, jointly organized by **Internal Quality Assurance Cell - IQAC, PBR VITS,** Kavali and **VIT-AP University,** Amaravathi.

Eminent Speakers

*Dr. P S Rama Sreekanth, Director, RAAC, VIT-AP * Dr. Chandu D S, Asst. Director, RAAC, VIT-AP

Co-Coordinator, IQAC

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Coordinator, IQAC

White Spot Syndrome Detection in Shrimp using Neural Network Model

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Abstract - **White Spot Syndrome Virus (WSSV) epidemics have seriously harmed penaeid shrimp aquaculture all over the world. There remains an absence of information concerning these complicated viral-host interactions, despite significant attempts to describe the virus, the circumstances that cause infection, and the processes of infection. This understanding is required to develop reliable and efficient treatment strategies for WSSV. Mechanisms for segmenting and categorizing images offer a method for extracting features from images based on their objects. Those certain objects are produced using an image segmentation technique in which segments are formed by grouping together pixels with similar spectral properties that are close to one another. The area of interest on any underlying image is protected by image segmentation, a crucial step before actual analysis is recommended in any image processing methodology. In fact, the effectiveness of the segmentation algorithm used will have a big impact on how accurate any image processing performs. This study proposes a typical segmentation technique for segmenting shrimp variability by using essential Canny-GLCM (Gray Level Co-occurrence Matrix) features with a simple Artificial Neural Network (ANN) model.**

Keywords- White spot syndrome virus, shrimp, segmentation algorithm, Artificial Neural Network

I. INTRODUCTION

Shrimp sales volume in 2021 are expected to be at least 8.9% higher than they were in 2020, with the shrimp farming sector expected to grow by more than 5% in 2022 [1]. Fig. 1 describes the shrimp production levels from the year 2010 to 2022. The Global Shrimp Aquaculture Production Review and Prediction were created using industry data and the findings of a survey conducted by the Global Seafood Alliance. Ecuador's strong growth this year, which could reach 10% by the end of the year, is due in part to the sector rebounding after being slowed by the Covid pandemic in the first year. However, the rate of growth has been significantly higher than the Combined Annual Growth Rate (CAGR) of around 4% experienced in the decade ending in 2020 [2-7]. Most of the world was still under quarantine, and there were still issues with people being unable to find work in the processing plants. There were weather issues, high feed costs and so on. Table 1shows the shrimp growth in percentage for various regions.

White Spot Disease (WSD) is a prominent disorder among shrimps that will contaminate shrimp farms and direct more threats to the economy. WSD developed from the White Spot Syndrome Virus (WSSV) which is a rod-shaped Deoxyribonucleric Acid (DNA) virus with more additional virions and is categorized in the family Nimaviridae called genus Whispovirus [8-11]. It is considered as a severe virus pathogen of penaeid shrimp cultivated which is widely disseminated globally. Penaeid Shrimps namely Penaeus Merguiensis, P. indicus and P. monodon are magnificent shrimp species which is cultivated around the earth [12]. Similar to other species, these can develop a severe infection. Fig. 2 represents abnormal shrimp. The virus is infecting the

Hierarchical Sugeno-FIS based Multi-hop Routing Protocol for Health Monitoring in WBANs

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***Abstract*— WBANs, or wireless body area networks, have recently gained attention as a potentially useful tool in the field of health monitoring. However, maximizing energy efficiency in WBANs is challenging due to the nodes' limited battery life. In this research, we propose a Hierarchical Sugeno Fuzzy Inference System (FIS) based routing for health monitoring that minimizes energy consumption while maintaining a high level of accuracy. The protocol also utilizes multi-hop routing to increase network coverage and maintain network connectivity over longer periods of time. The simulation results demonstrate that the proposed method is more efficient and has a longer lifetime for the network than the state-of-the-art protocols. The protocol also utilizes multi-hop routing to increase network coverage and maintain network connectivity over longer periods and stability. The proposed method is more efficient than the existing method based on simulation results and has a longer lifetime for the network than the state-of-the-art protocols.**

Keywords— Energy-Efficient, FIS, Network Lifetime, Routing, WBANs.

I. INTRODUCTION

Wireless Body Area Networks (WBANs) are networks of wearable or implantable sensors and devices that are used for health monitoring, sports, entertainment, healthcare applications, such as remote patient monitoring, disease diagnosis, emergency medical response and military applications. WBANs are networks that are formed by a collection of small devices that are designed to be placed on or attached to the body and that are capable of wirelessly communicating with one another. However, WBANs face several challenges, including limited battery life, low transmission range, and high interference [1-3].

The sensor nodes are not have enough battery power capacity due to small in size of battery that's why to increasing functionality nodes in network of is the one of main motivation of this paper The main objective to developing an energy-efficient routing protocol.

The energy consumption, bandwidth, transmission power, and processing power of each sensor node in a WBAN are limited. With the help of WBANs, medical professionals can respond quickly from any distance. As a family typically spends over 20% of their income on medical expenses, it is essential in the present era. The energy or battery power of wireless sensor nodes is often limited [4].

WBANs have many advantages over wired health monitoring systems, such as mobility, flexibility, and non-invasiveness. A major application of WBANs is health monitoring, which enables medical practitioners to remotely and in real-time check the health state of patients. The limited energy and computing resources of the nodes, the dynamic topology of network, strict quality of service (QoS) requirements make it difficult to implement a health monitoring protocol in WBANs that is energy efficient. As a result, reliable routing protocols are essential for maximizing network efficiency and extending the life of the network [9].

M-ATTEMPT protocol is developed based on the thermal aware routing. In this paper, the author selected route path based on the heat of sensor nodes with threshold limit. The heat of sensor nodes more than given threshold values sensors are not involved in routing. The sensors have below threshold limit heat, nodes are participating in routing process. This protocol consumes are energy, less stability period and have more path loss [5].

The SIMPLE protocol was designed to reduce energy consumption throughout the routing process. In this protocol, the sensor nodes' distance from one another and their current energy states determine which node will act as the parent. However, this protocol has a lower throughput but provides a longer network lifetime and stability period [6].

To extend the overall lifetime of WBAN, an efficient routing protocol that consumes the least amount of energy is required data is sent from sensors to sink. Therefore, this work proposes a Fuzzy Logic (Sugeno-FIS) based routing that minimizes energy consumption by intelligently choosing the parent node. Through simulations, we illustrate the efficacy of our proposed protocol.

In recent years, fuzzy logic has emerged as a powerful tool for designing routing protocols in WBANs. Fuzzy logic-based routing protocols use linguistic variables to represent the network parameters, such as signal strength, battery level, and distance, and use fuzzy rules to make routing decisions. Fuzzy logic-based routing protocols have shown promising results in improving the network lifetime and reducing energy consumption [7].

However, existing fuzzy logic-based routing protocols suffer from some limitations, such as high computational complexity, poor scalability, and low accuracy in handling dynamic network conditions. Therefore, there is a need for a new hybrid routing protocol that combines the strengths of fuzzy logic with other optimization techniques to overcome these limitations and improve the network performance [8].

The purpose of this study is to present a proposal for building that is efficient routing protocol for use in WBANs for the purpose of health monitoring. The clustering strategy, which separates the network into small clusters in order to limit the amount of energy that is consumed, is the foundation of the protocol that has been proposed. A routing algorithm is used in the protocol to determine the best route

Voice Based Medicine Reminder

Peace of mind in your pocket - our medicine reminder has you covered

Project Idea

- Many times it is not possible for elder people to take medicine on time because of their age and sometimes they forgot to take the medicine. It creates an health issue. so, this kind of project can help a lot in that case.
- It is also help the care taker to remind the time of giving medicine for the bed ridden patients.

Hardware Components Used

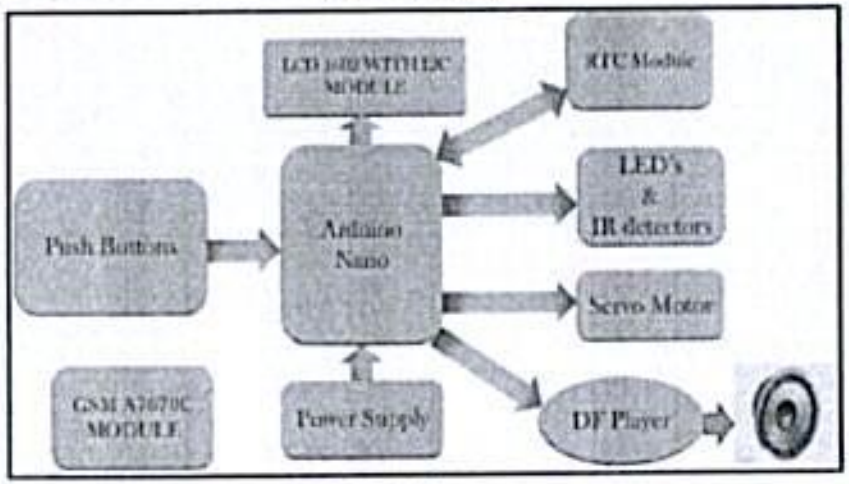
- Arduino Nano
- LCD 1602
- I2C Module
- RTC Module(DS2321)
- Resistors-10K
- Push Buttons
- CMOS Battery
- GSM A7670C
- Loud Speaker, LED
- DF Mini Player
- IR detectors
- Servo Motor

Software Used

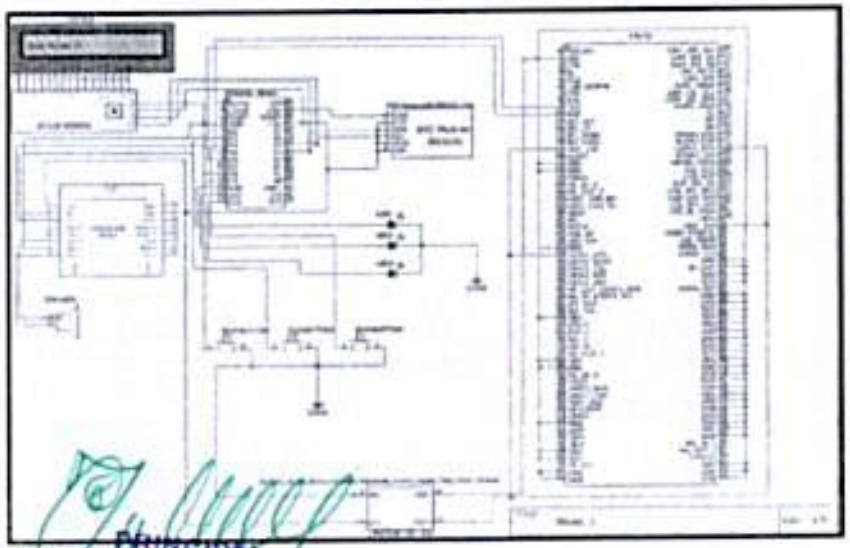
- Arduino IDE Software

- **Advantages:**
  - Improved Medication Adherence Convenience
  - Customization
  - Accessibilty
- **Disadvantages:**
  - Privacy and Security Concerns
  - User Error

Block - Diagram



Circuit - Diagram



Working Principle

- **User Input:** The user inputs their medication details into the reminder system, including the medication names, dosages and specific times for taking each medication.
- **Schedule Creation:** Based on the user input, the reminder system creates a personalized medication schedule. This schedule includes the times when each medication should be taken,
- **Reminder Alerts:** At the designated times specified in the schedule, the reminder system sends alerts or notifications to the user to remind them to take their medications in the form of buzzer and voice message and call alert with acknowledgement if medicine is not taken by the user.

Conclusions

Automated medicine reminders offer convenience, accuracy, and potentially improved adherence to medication schedules. By integrating technology with healthcare, patients can better manage their prescriptions, reducing the risk of missed doses and improving overall health outcomes. However, ensuring user-friendly interfaces and addressing privacy concerns are crucial for widespread adoption and effectiveness.

References

- https://www.researchgate.net/publication/356783053_An_Automated_and_Online-Based_Medicine_Reminder_and_Dispenser

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by P.Pavan Teja (23X41A6605)

Tesla Dojo

"Driving AI Forward: Tesla's Cutting-Edge Dojo Supercomputer"

Introduction To Tesla Dojo

s an advanced project by Tesla, focusing on artificial
MI technology.
uper-smart computer designed to process huge
ata and train AI models quickly.

Features of Tesla Dojo

ing: Tesla Dojo can learn from vast amounts of dat
time, making cars smarter on the road almost

fety: With its lightning-fast processing, Tesla Dojo
alyses real-time data to help cars make split-second
ping drivers and pedestrians safe.

Design of Tesla Dojo

Architecture: Tesla Dojo could feature a
lesign, allowing for easy scalability and
to adapt to evolving AI needs.

s Fleet Learning: Dojo could facilitate
s fleet learning, allowing Tesla vehicles to
ts and experiences to collectively improve
viour and safety.

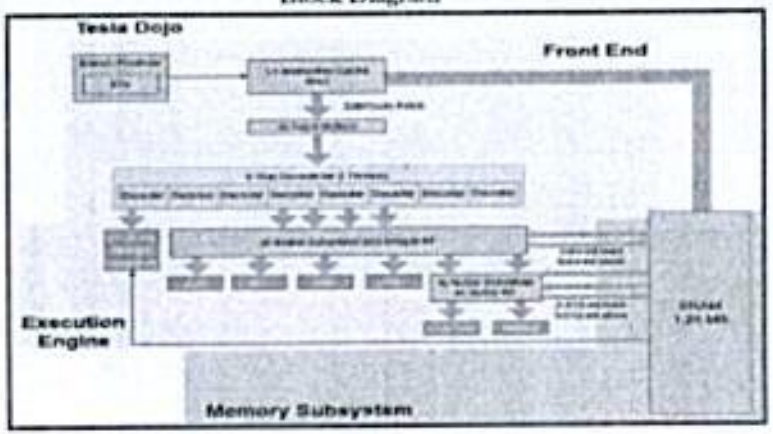
Latest Updates

announced plans to spend $500 million to build a
r named "Dojo" in Buffalo. The new supercomputer will
ocess millions of terabytes of data from Tesla's electric
Jako's Riverbend Gigafactory. A update on Jan 29th.

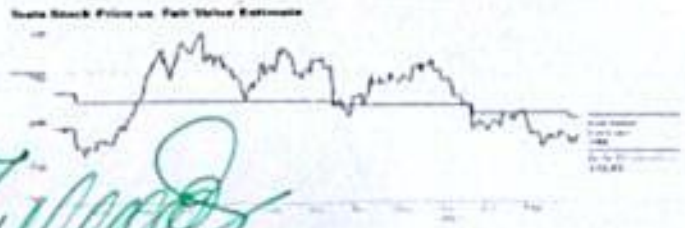
Redwood, this affordable electric car is slated to enter
2025 at Tesla's Texas Gigafactory, signaling a significant
making sustainable transportation accessible to a wider
adate on Feb 16th.

trying to ward off competitors including OpenAI in race to
big thing. An update on Apr 4th

Block Diagram



Images of Tesla Dojo



Working Principle

Tesla Dojo utilizes specialized hardware, software frameworks, a
algorithms for efficient AI training, focusing on parallel processin
computing. Its strength lies in swiftly handling large data volume
neural network architectures, aiming to significantly reduce train
models.

Applications:

- Advanced Autonomous Driving: The primary application of Tesla advanced autonomous driving capabilities of Tesla vehicles. It will network training and inference for real-time decision-making.

Advantages:

- Improved Latency and Real-Time Performance: The integration of edg enables Dojo to process data closer to the source, reducing latency decision-making.

Disadvantages:

- Cybersecurity Challenges: The integration of advanced AI systems lil cybersecurity risks that must be carefully addressed to protect the int user data.

Future Outlook

- Unleashing the power of Dojo: It is on track to become one of the AI training supercomputers, offering unprecedented computing pu potentially transform various industries, from automotive to healthc entertainment, and beyond.

Conclusions

- In conclusion Tesla Dojo supercomputer leverages custom h optimizations to accelerate AI training, potentially using specia distributed computing techniques. Its aim is to significantly re large-scale AI models, fostering faster advancements i development.

References

- https://chipsandcheese.com/2022/09/01/hot-chips-34-teslas-d microarchitecture/
- https://www.forbes.com/sites/stevendickens/2023/09/11/tesla supercomputer-a-paradigm-shift-in-supercomputing/?sh=744

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by A. Nikhitha (22X45A0423)

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Accredited with NBA, NAAC 'A' grade, ISO 9001:2015 Certified Institution
Department of Computer Science and Engineering

Performance Based Appraisal System (PBAS) for Professors
As per UGC Guidelines 2010
For the period 2023 to 2024
Summary Sheet

Name of the Faculty: Dr.A.Radhika
Department: CSE

S.No.	Evaluation parameter	Max API Score	Minimum Score required	Self-Score	DFAC Score	IASC Score
1	Service in the College	75	----	75	70	70
2	Curricular Activities	450	----	345	295	295
3	Co-Curricular Activities	150	----	60	50	50
4	Research &Development	250	60	100	95	95
5.	Administrative and Extra-curricular activities	150	----	130	115	115
Total		1000	550	710	625	625

Signature of faculty	Radhika		
Signature(s) DFAC members	1 Radhika	2 K. Chaitanya	3
Signature(s) of IASC members	1	2 T.	3 S Sri Gouri

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PART - A
Service in the College

Maximum API Score:: 50

1 Personal Details:

1.	Name	Dr.A.Radhika
2.	Present Designation	Professor
3.	Name of the Department	CSE
4.	College level administrative post (if any)	
5.	Employee Identification Number	CS02
6.	Date of Appointment to the present post	09-12-2009
7.	Date of birth	10-01-1976
8.	Address	Flatno 2d2,Krishna Godavari Apartment Papullamill center, Kanuru Vijayawada
9.	Contact details	E-mail : radhikankala@gmail.com Telephone : 9885986856 Mobile : 9885986856

2 Educational qualifications (starting from degree):

Programme	Period of study	University	Marks/CGPA	Class obtained
Phd	07-02-2020	Rayalaseema University	**Awarded**	**Awarded**
BTech(CSE)	**2017**	**Sri Rama Institute of Technology for Sciences ,JNTUH**	**76%**	**Ist class With Distiction**
M.Tech(CSE)	**2009**	**Nimra Institute of Science and Technology,JNTUK**	**78%**	**Ist class With Distinction**
Master of Computer Applications	**2000**	**Rajiv Gandhi college of PG Courses,Andhra University**	**74%**	**Ist class**
BSC in Computers	**1996**	**Rajamahendri college for women, Andhra University**	**72%**	**Ist class**
Intermediate	**1993**	**,Board of**	**78%**	**Ist class with**

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		IntermediateEducation		Distinction
SSC	**Nivedita Kishore Vihar English Medium High school,** **Rajahmundry** **March 1991**	**Nivedita Kishore Vihar English Medium High school**	**83%**	**Ist class with Distinction**

3 Experience (starting from present position):

S.No.	Designation	Institution	From	To
1	Professor	SRK Institute of Technology, Vijayawada	04-12-2023	Tilldate
2	Associate Professor	SRK Institute of Technology	03.11.2020	03-12-2023
3	Sr. Assistant Professor	SRK Institute of Technology	09-01-2010	02-11-2020
4	Assistant Professor	Nimra Institute of Science and Technology, Vijayawada	01-08-2007	09-01-2010
5	Assistant Professor	PVP Siddhartha college of Engineering, Vijayawada	10-06-2005	31-07-2007
6	Lecturer	Koneru Lakshmaiah college of Engineering, Vijayawada	01-06-2004	09-06-2005
7	Lecturer	Gayatri Vidya Parishad College of Engineering, Visakhapatnam	01-03-2001	20-05-2004

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PART-B
PART I – Curriculum Activities

Maximum API Score: 450

1.1. Teaching weekly load allotted by the department as per time table

Semester-I		Semester-II		Total load	Average of weekly load
Name of the course	Weekly Load	Name of the course	Weekly Load		
Devops	6+6+4+4	ML	6+6+4+4	20	20
Total load					20

Score details for 1.1	Maximum score	Self-score	DFAC score	IASC score
	40	40	35	35

1.2. Total lecture periods taken in the previous two semesters

Semester-I			Semester-II		
Name of the course	T/P	Score	Name of the course	T/P	Score
Devops	75	28	CNS	75	28
Average score of semester-I		28	Average score of semester-II		28
Final score = Average score of two semesters					

T: Number of lectures taken as per concerned course attendance register
P: Number of lectures proposed in the concerned course lesson plan
Score = T/P * 20

Score details for 1.2	Maximum score	Self-score	DFAC score	IASC score
	20	20	15	15

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1.3. Course files (All the claimed contents should be available in the course file)

S.No	Contents of course file	Weightage points per course per semester	Maximum points per semester	Semester-I		Semester-II	
				Course Name	Course Name	Course Name	Course Name
1	Syllabus page	0.5	1	**0.5**	0.5	0.5	0.5
2	Lesson plan	1	2	1	1	1	1
3	Lecture Notes	3	6	3	3	3	3
4	Question bank (Unit wise)	2	4	2	2	2	2
5	Internal examination question papers with CO mapping	1	2	1	1	1	1
6	Internal examination marks copy	0.5	1	0.5	0.5	0.5	0.5
7	Internal examination CO, PO assessment	2	4	2	2	2	2
8	End Semester results copywith Analysis	1	2	1	1	1	1
9	End semester examination CO, PO assessment	2	4	2	2	2	2
10	Improvements to be brought in next time course delivery	1	2	1	1	1	1
11	Assignment questions with CO mapping	1	2	1	1	1	1
12	Course End Survey evaluation	1	2	1	1	1	1
13	Scheme of evaluation for end semester examination	3	6	3	3	3	3
14	Any other (with approval of IASC)	1	2	1	1	1	1
Maximum points		20	40	20	20	20	20
Total of Semester-I &Semester-II				40		40	
Average of Semester-I &Semester-II				40			

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Score details for 1.3	Maximum score	Self-score	DFAC score	IASC score
	40	40	35	35

1.4. External examination invigilation / evaluation duties

Nature of the Duty Performed	Points per duty	Number of duties performed		Total number of duties performed	Total points
		Semester-I	Semester-II		
External examination answer sheets evaluation	5	1	1	2	10
External examination invigilation	1	5	5	10	10
Lab external examination examiner	5	2	2	4	20
Seminar- – Internal examiner	5	1	1	2	10
Mini Project– Internal examiner	5	1	1	2	10
Major Project – Internal examiner	5	1	1	2	10
Term Paper – Internal examiner	5	5	5	10	50
Any other works*	1	1	1	2	2
				Total points	122

*Any other works related to external examination with approval of IASC

Score details for 1.4	Maximum score	Self-score	DFAC score	IASC score
	80	80	75	75

1.5. Internal examination invigilation / evaluation duties

Nature of the Duty Performed	Points per duty	Number of duties performed		Total number of duties performed	Total points
		Semester-I	Semester-II		
Internal descriptive examination answer sheets evaluation	1	1	1	2	2
Internal objective examination answer sheets evaluation	1	1	1	2	2
assignment books	1	1	1	2	2

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evaluation					
Internal examination invigilation	1	5	5	10	10
Lab internal examination examiner	1	2	2	4	4

Score details for 1.5	Maximum score	Self-score	DFAC score	IASC score
	20	20	15	15

11.6. Use of innovative teaching methodologies

Teaching methodology	Number of points per course per semester	Max. points per semester	Semester-I points	Semester-II points	Average points of two semesters
Power point presentations with own annotations and minimum 10 slides per course per semester	5	10	**5**	**5**	**10**
Visuals (Topic Related own video/simulation created)	5	10	**5**	**5**	**10**
Entire course content uploaded in MOODLE server	10	20			
				Total points	20

Note: All teaching methodology works should be recorded in the teaching diary of concerned course attendance register and proofs should be authorized by HoD.

Score details for 1.6	Maximum score	Self-score	DFAC score	IASC score
	20	20	15	15

1.7. Remedial classes / Bridge Courses / Content beyond syllabus / Etc.

Details of item	Semester – I			Semester - II			Average of semester-
	Name of	No. of	Semester	Name of	No. of	Semester	

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	the course	classes taken	– I points	the course	classes taken	– II points	I and semester-II points
Remedial classes	ML	10	20	Devops	10	20	20
Bridge courses	ML	10	20	Devops	10	20	20
Career oriented course				GATE coaching in CN	10	20	10
Content Beyond Syllabus	Devops additional concepts	5	10	CNS additional concepts	3	6	8
Additional experiments designed and conducted beyond curriculum	Devops 3 additional Programs	3	15	CNS 1 Additional Program	1	5	10
Job oriented Certificate Courses	CISCO:Introduction to Cybersecurity	30	30	CISCO:Introduction to Python Pragramming	30	30	30
						Total points	98

Details of item	Minimum classes required	Points per class	Maximum points
Remedial classes	5	2	10
Bridge courses	5	2	10
Career oriented course	5	2	10
Content Beyond Syllabus	5 concepts	2	10
Additional experiments designed	2 experiments	5	10

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and conducted beyond curriculum			
Job oriented Certificate Courses	10	1	10

Score details for 1.7	Maximum score	Self-score	DFAC score	IASC score
	40	40	35	35

1.8 Percentage of passes

Semester – I			Semester – II		
Name of the course	Percentage of pass	Points per course	Name of the course	Percentage of pass	Points per course
Devops	97.8	30	CNS	98.51	30
Average points of semester-I		30	Average points of semester-II		30
Total points = Average of semester I & II points =30					

Note: Don't include laboratory courses here.

Percentage of pass	*<55%*	*55-64.99%*	*65-74.99%*	*75-85%*	*>85%*
points	10	15	20	25	30

Score details for 1.8	Maximum score	Self-score	DFAC score	IASC score
	30	30	25	25

1.9. Student feedback on teaching

Semester – I			Semester - II		
Name of the course	Feedback obtained	Points per course	Name of the course	Feedback obtained	Points per course
Devops	5	30	CNS	5	30

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Average points of semester-I		30	Average points of semester-II		30
Total points = Average of semester I & II points =30					

Note: Feedback for laboratory courses also can be included here

Feedback	<3	3 to 3.49	3.5 to 3.99	4 to 4.49	4.5 to 5
Points	10	15	20	25	30

Score details for 1.9	Maximum score	Self-score	DFAC score	IASC score
	30	30	25	25

1.10 Project Guidance (Mini project/major project/seminar/term paper)

Semester – I			Semester - II		
Batch – 1			Batch - 1		
Title of Project:			Title of Project: Facial Attendance System		
Register no's of students	Grade	Score	Register no's of students	Grade	Score
			19X41A0529	A	5
			19X41A0522	A	
			19X41A0532	A	
			19X41A0562	A	
Average score of Batch-1 in semester-I (B1)			Average score of Batch-1 in semester-II (B2)		
Average score of batch-1 in two semesters (S): (B1+B2)/2 =					
Batch – 2			Batch - 2		
Title of Project:			Title of Project		

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Register no's of students	Grade	Score (S1)	Register no's of students	Grade	Score (S2)
			19X41A0513	A	
			19X41A0528	A	
		5	19X41A0536	A	5
			19X41A0558	A	
Overall score = S+S1+S2+P =					

P = 20 points if SCI/Scopus paper (journal / conference) published from the work of theproject (This publication should not be shown under Part – 3)

Project Grade	A+	A	B	C
Points	30	25	20	15

Score details for 1.10	Maximum score	Self-score	DFAC score	IASC score
	50	25	25	25

1.11. NPTEL/MIT/COURSERA/edx/UDACITY courses completed

Title of the course	Offered by	Duration of course with dates	Percentage of marks obtained	Points obtained	Average points of one semester	Average points of two semesters
Semester = I						
Semester = II						

Note: Full course of at least 6 weeks duration only to considered.
Points for a course with exam: 20*Percentage of marks obtained

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Points for a course without exam: 10

Score details for 1.11	Maximum score	Self-score	DFAC score	IASC score
	20			

1.12. Involvement of Faculty in syllabus framing (BOS)
For BOS members:
Date(s)of BOS meeting attended:____15-09-23_____Points:20
For non-BOS members:
Title of course(s) for which syllabus prepared:_____
Points: 10 for each course

Score details for 1.12	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.13 Student Internships

Name & Regd, no. of student received internship through your guidance	Organization name	Duration of internship	Amount received by student (paid internship) for internship	Points
Total points				

Paid Internship: 5 points per student (Max.: 20 points)
Non-paid internship: 1 point per student (Max.: 20 points)

Score details for 1.13	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

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1.14 MOU's

Details of MOU	Validity of MOU (Mention date(s))	Task fulfilled as per below table	Points
CISCO		Programming Essentials in Python	
		Introduction to Cyber security	
Total points			

These tasks has to be done through MOU		
Task No.	Tasks	Points
1	Students projects in the industry	10 per batch
2	Guest lectures	5
3	Arranging industry training to faculty & students	10
4	Training provided by our faculty to industry people	20
5	Internships for our students (paid internship)	5 per student
6	Industry visit	10
7	Placements for our students in that industry	20 per student
8	Our faculty in the board members of that industry	10
9	Entrepreneurship programs conducted for our students	5

Score details for 1.14	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

Total score of part–I

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Item no.	Maximum score	Self-score	DFAC score	IASC score
1.1	40	40	35	35
1.2	20	20	15	15
1.3	40	40	35	35
1.4	80	80	75	75
1.5	20	20	15	15
1.6	20	20	15	15
1.7	40	40	35	35
1.8	30	30	25	25
1.9	30	30	25	25
1.10	50	25	20	20
1.11	20	0	0	0
1.12	20	0	0	0
1.13	20	0	0	0
1.14	20	0	0	0
Total score of part-1	450	345	295	295

Part - II Co-Curricular Activities

Max. Score: 150

2.1Membership of professional societies

Membership offered professional society	Membership number	National / International	Points
		Total points	

Note: International membership=10; National membership=5 points, Don't include online free memberships.

Score details for	Maximum	Self-score	DFAC score	IASC score

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2.1	score			
	10	—	—	—

2.2 Departmental development of facilities

Development of facilities	Details of development undertaken	Semester–I	Semester – II	Total score
a) Laboratory infrastructure up gradation/New Experiment Setup Including MODROB (Utilization of budget)				
b) Common student facilities – Class Room Services, Basic Amenities, Seminar/Common Halls etc.				
c) Addition & use of new software				
d) Any Other - authorized by IASC with the approval of Principal				
			Total score	

Principal participant = 5 pointsper semester; others = 2.5 points per semester

Score details for 2.2	Maximum score	Self-score	DFAC score	IASC score
	10	—	—	—

2.3 Attending or organizing various activities:
Conferences / Seminars / workshops/ FDPs / skill development course / certificate courses / industry training and other similar items

Attended / Organized	Dates		No of Days	Title, Place, Month & year details	Points
	From	To			
Attended FDP	10-07-2023	28-07-2023	20	Deep Learning for NLP and Computer Vision	
Total points					30

Maximum points for attending various events: 30
Maximum points for organizing various events: 30

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Score details for 2.3	Maximum score	Self-score	DFAC score	IASC score
	50	50	35	35

2.4 Guest Lectures/webinar attended, organized or delivered

Attended / Organized / Delivered	Dates		Title, Place, Month & year details	Points
	From	To		
			Total points	

Score details for 2.4	Maximum score	Self-score	DFAC score	IASC score
	30			

2.5 Accompanied students on industrial tours

Date(s)	Places visited	No. of days	Points
Total points			

One day trip: 5 points; More than one day trip: 10 points

Score details for 2.5	Maximum score	Self-score	DFAC score	IASC score
	10			

2.6 Student technical events organized

Name of the event	Date(s)	Role	Points
Group Discussion	25-09-2022	Coordinator	10

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Role(s): Department coordinator: 10 points, Event coordinator: 5 points, Others: 2.5 points

Score details for 2.6	Maximum score	Self-score	DFAC score	IASC score
	10	10	5	5

2.7 Student innovations; Guidance

Details of student innovation	Place of participation	Date(s) of participation	Points

Score details for 2.7	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

2.8 Consultancy

Name of the company to which consultancy provided	Amount earned	Total amount	Points

< Rs. 25000/- 2.5 points ; 25000 to 50000 – 5 points ; 50000 to 100000 – 7.5 points ; 100001 1000000 – 10 points; more than 1000000 – 20 points

Score details for 2.8	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

Total score of part- II

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Item no.	Maximum score	Self-score	DFAC score	IASC score
2.1	10			
2.2	10			
2.3	50	50	45	45
2.4	30			
2.5	10			
2.6	10	10	5	5
2.7	20			
2.8	20			
Total score of part-II	150	60	50	50

Part – III R &D Related Contributions

Max. Score: 300 (Min. score required: 60)

3.1 Research Publications

Book / Book chapter (Indexed by SCIE / Scopus / UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names			
	Name of the book / book chapter			
	Publisher details			
	ISBN no.			
	Page no(s), Month & Year of publication			

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Points: Book: SCIE - 50, Scopus – 40, UGC – 30
Points: Book chapter: SCIE - 40, Scopus – 30, UGC – 20

Paper publication(s) in journals (Indexed by SCIE / Scopus / UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names	Dr.A.Radhika		30
	Name of the paper	Motorcycle Safety helmet detection for the two wheeler motorcyclist		
	Publisher details	International Journal of Advanced Science & Technology		
	ISSN no.	2395-0056		
	Page no(s), Month & Year of publication	2023		

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names	Dr.A.Radhika		30
	Name of the paper	Motorcycle Safety helmet detection for the two wheeler motorcyclist		
	Publisher details	International Journal of Advanced Science & Technology		
	ISSN no.	2395-0056		
	Page no(s), Month & Year of	2023		

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	publication			
S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names	Dr.A.Radhika		30
	Name of the paper	Motorcycle Safety helmet detection for the two wheeler motorcyclist		
	Publisher details	International Journal of Advanced Science & Technology		
	ISSN no.	2395-0056		
	Page no(s), Month & Year of publication	2023		
S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names	Dr.A.Radhika		30
	Name of the paper	Motorcycle Safety helmet detection for the two wheeler motorcyclist		
	Publisher details	International Journal of Advanced Science & Technology		
	ISSN no.	2395-0056		
	Page no(s), Month & Year of publication	2023		

Score details for	Maximum	Self-score	DFAC score	IASC score

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3.1	score			
	100	80	—	—

3.2 Sponsored Research projects

Details of investigators	Name of the project	Sanctioning agency	Amount sanctioned / applied	Date of application	Project sanctioned / result awaited	Points
					Total points	

Project amount	Sanctioned (points)	Result awaiting (points)	No. of investigators allowed
More than Rs.20 Lakhs	40	12	5
Rs.10 Lakhs – 20 Lakhs	30	09	4
Rs.5 Lakhs -10 Lakhs	20	06	2
< Rs.5.0 Lakhs	10	03	2
SAGTE projects	10	–	2

Score details for 3.2	Maximum score	Self-score	DFAC score	IASC score
	40	—	—	—

3.3 Conferences / symposia papers presented

Conference proceedings (Indexed by SCIE / Scopus, UGC only will be considered)

S.No.	Details of Paper	Indexed by SCIE / Scopus /	Points

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			UGC	
1	Author(s) names			
	Name of the paper			
	Conference details			
	Month & Year of conference			

Score details for 3.3	Maximum score	Self-score	DFAC score	IASC score
	30	—	—	—

3.4 Patents

Details of inventors	Title of the patent	Patent registering agency	Month and year of patent	Published / Granted	Points
				Total points	

Score details for 3.4	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

3.5 Incubation center established

Details of incubation center	Month & Year of establishment	Points

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Max points: 10; Principal coordinator: 100%; others (with active participation)=80%
Active Participation as certified by Coordinator and HOD

Score details for 3.5	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

3.6 Centre of Excellence established

Details of centre of excellence	Month & Year of establishment	Points

Max points: 10; Principal coordinator: 100%; others (with active participation)=80%
Active Participation as certified by Coordinator and HOD

Score details for 3.6	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

3.7 Ph.D related activities

Ph.D awarded under your guidance 10 points

Details of scholar	Awarding university	Date & month of Ph.D award

Score details for 3.7	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

Total score of part- III

Item no.	Maximum score	Self-score	DFAC score	IASC score
3.1	100	100	95	95
3.2	40			
3.3	30			

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3.4	20			
3.5	20			
3.6	20			
3.7	20			
Total score of part-III	250	100	95	95

PART-IV Administrative and Extra-curricular activities

Max. Score: 100

4.1 Departmental Administration

S.No.	Activity	SEM-I	SEM-II	Total points
1.	In-charge of time tables (10 /sem)			
2.	Attendance in-charge(10/sem)			
3.	Internal marks in-charge(10/sem)			
4.	Mini / Major Project Coordinator/Review Members			
5.	Exams In-charge (10)			
6.	Library in-charge			
7.	Lab In-charge			
8.	Discipline(class teacher)			
9.	Professional Society Related Coordinators (Based on the events conducted)/Department Association			
10.	Module / Course Coordinator			
11.	Departmental R&D Coordinator			
12.	Media Coordinator			
13.	Departmental News Letter Editor/Members			
14.	ISO (Coordinator)			
15.	TEQIP Coordinator			
16.	Alumni Coordinator			
17.	NBA/NAAC Participation(10 /sem)	10	10	20
18.	Grievance cell			
19.	Anti-ragging Committee	10	10	20
20.	Vigilance			
21	Programme Coordinator(15 /sem)*			
22	Answer script in-charge			
23	Induction day			
24	Farewell day		2.5	42.5
25	Any Other - authorized by chairman CAS standing committee with the approval of Principal			

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Total points	82.5

Each activity = 5 points per year; 2.5 points per sem; Coordinator =100%; others = 50%

Score details for 4.1	Maximum score	Self-score	DFAC score	IASC score
	40	40	35	35

4.2 Institutional level administration

S.No.	Activity	SEM-I	SEM-II	Total points
1.	NBA Participation(NBA Common Criteria Preparation Coordinators)	5	5	10
2.	NAAC	5	5	10
3.	Autonomous/Examination Section			
4.	TEQIP Nodal Officers			
5.	R&D Committee Member/Paper Incentive Member			
6.	Maintenance of Central facilities (telephone, internet, electrical, water works, hostel, Sports etc.)			
7.	Career Guidance Cell	5	5	10
8.	Grievance cell anti ragging	5	5	10
9.	ISO Co-ordinator			
10.	Any other such as Hostel Warden etc.,			
			Total points	40

Each activity/sem = 5 points; Coordinator=100%; others=50%

Score details for 4.2	Maximum score	Self-score	DFAC score	IASC score
	60	60	55	55

4.3 Institutional Events Organization members, Sports Participants

S.No.	Activity	SEM-I	SEM-II	Total points
1.	Annual day		10	10
2.	Cultural activities		10	10
3.	Sports participation		10	10
4.	Any Other as approved by IASC and by Principal approved			
			Total points	30

Each activity = 10 Points/sem;

Score details for 4.3	Maximum score	Self-score	DFAC score	IASC score

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	30	30	25	25

4.4 NSS / NCC / Other Service activities

S.No.	Activity	SEM-I	SEM-II	Total points
1.	NCC / NSS activities			
2.	NSS/ NCC Coordinator(10)			
3.	Women grievance cell activities			
4.	Health camps			
5.	Blood camps			
6.	Service to poor			
7.	Service to Disabled			
8.	Charity camps etc.			
9.	Any Other as approved by IASC and by Principal approved			
			Total points	

Each activity = 5 points/sem

Score details for 4.4	Maximum score	Self-score	DFAC score	IASC score
	10	—	—	—

4.5 Training & other Misc. activities

S.No.	Activity	SEM-I	SEM-II	Points
1.	Training and placements- Departmental T&P Coordinator=20 points; others = 10 points			
2.	Institute News letter Editorial board: 10 points; ArticleContributors:5 points(From Dept);			
3.	Material contribution to news letter/Annual Day Report/House Journal from Department ArticleContributors:5 points(From Dept)			
4.	Any Other as approved by IASC and by Principal approved			
			Total points	

Score details for 4.5	Maximum score	Self-score	DFAC score	IASC score

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	10	–	–	–

Total score of part- IV

Item no.	Maximum score	Self-score	DFAC score	IASC score
4.1	40	40	35	35
4.2	60	60	55	55
4.3	30	30	25	25
4.4	10			
4.5	10			
Total score of part-IV	150	130	115	115

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(ISO 9001:2015 Certified Institution)

Department of Computer Science and Engineering
Artificial Intelligence & Machine Learning (CSM)

INDIVIDUAL TIME TABLE

SRKIT / CSE / 10.1

Faculty Name: T.Prasanna

Time	9:00 To 9:50	9:50 To 10:40	10:45 To 11:35	11: 35 To 12:20	1:10 To 2:00	2:00 To 2:45	2:50 To 3:35	3:35 To 4:20
Period	1	2	3	4	5	6	7	8
MON		**MFCS (II CSM)**	OOR (III CSM)			***OOR (III CSD)***		
TUE			***OOR (III CSD)***			OOR (III CSM)		**MFCS (II CSM)**
WED	***OOR (III CSD)***				OOR (III CSM)	**MFCS (II CSM)**		OOR (III CSM)
THU			**MFCS (II CSM)**		***OOR (III CSD)***			
FRI	OOR (III CSM)				**MFCS (II CSM)**		**MFCS (II CSM)**	
SAT		***OOR (III CSD)***			OOR (III CSM)		***OOR (III CSD)***	

Signature of the Faculty : Prasanna

Signature of the HOD : B. Rama

Faculty Name: Dr.A.Radhika

Time	9:00 To 9:50	9:50 To 10:40	10:45 To 11:35	11: 35 To 12:20	1:10 To 2:00	2:00 To 2:45	2:50 To 3:35	3:35 To 4:20
Period	1	2	3	4	5	6	7	8
MON		DevOps (III CSM)			***DevOps (III CSD)***		DevOps (III CSM)	
TUE	←	**DevOps LAB (III CSM)**		→		***DevOps (III CSD)***		DevOps (III CSM)
WED		DevOps (III CSM)		***DevOps (III CSD)***	←	**DevOps LAB (III CSD)**		→
THU					DevOps (III CSM)			
FRI			***DevOps (III CSD)***					
SAT	***DevOps (III CSD)***			DevOps (III CSM)		***DevOps (III CSD)***		

Signature of the Faculty :

Signature of the HOD : B. Rama

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SRK INSTITUTE OF TECHNOLOGY VIJAYAWADA	**SRK INSTITUTE OF TECHNOLOGY** **Enikepadu, Vijayawada 521108** **Approved by AICTE, Affiliated to JNTUK, Kakinada** **(ISO 9001:2015 Certified Institution)** **Department of Computer Science and Engineering** **INDIVIDUAL TIME TABLE**	**SRKIT / CSE / 10.2**

Academic Year: 2023-2024 **Semester: II** **Wef: 28-12-2023**

Faculty Name: Dr.A.RADHIKA

Time	9:00 To 9:50	9:50 To 10:40	10:45 To 11:35	11: 35 To 12:20	1:10 To 2:00	2:00 To 2:45	2:50 To 3:35	3:35 To 4:20
Period	1	2	3	4	5	6	7	8
MON					← *MINI PROJECT (II SEM M.TECH)* →			
TUE		CNS (III CSE-A)						
WED		CNS (III CSE-A)						
THU		CNS (III CSE-A)				CNS (III CSE-A)		
FRI			CNS (III CSE-A)		← C & N S Lab (III CSE-A) →			
SAT		CNS (III CSE-A)						

Signature of the Faculty : Radhika Signature of the HOD : Radhika

Faculty Name: Mr.D.V.SUBBA RAO

Time	9:00 To 9:50	9:50 To 10:40	10:45 To 11:35	11: 35 To 12:20	1:10 To 2:00	2:00 To 2:45	2:50 To 3:35	3:35 To 4:20
Period	1	2	3	4	5	6	7	8
MON			DBMS (II CSE-A)			DBMS (II CSE-B)		DBMS (II CSE-A)
TUE			DBMS (II CSE-B)		← D B M S Lab (II CSE-A) →			
WED			DBMS (II CSE-A)		DBMS (II CSE-B)			DBMS (II CSE-B)
THU			DBMS (II CSE-A)		← D B M S Lab (II CSE-B) →			
FRI			DBMS (II CSE-B)		DBMS (II CSE-A)			
SAT					DBMS (II CSE-B)		DBMS (II CSE-A)	

Signature of the Faculty : Signature of the HOD : Radhika

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Department of Computer Science and Engineering
RESULT ANALYSIS

Result Analysis of III B. Tech II Semester (R20)

Dt. 20-08-2024

AY-2023-24 **SECTION-A & B** **SEM-II**

Description	No. of students	Total No. of students	Percentage
Total subject passed	108	135	80.00
One subject failed	14	135	10.37
Two subjects failed	05	135	3.70

Subject wise Passed Students

Subject Name	No of Students Appeared	No of students passed	Pass Percentage	Faculty Name
MACHINE LEARNING	135	129	96.27	Dr.V.Srinivas Rao
COMPILER DESIGN	135	112	84.21	Ch.Ramya Bharathi
CRYPTOGRAPHY AND NETWORK SECURITY	135	129	96.27	Dr.A.Radhika, K.Durga Bhavani
MACHINE LEARNING USING PYTHON LAB	135	132	99.25	Dr.V.Srinivas Rao
COMPILER DESIGN LAB	135	134	100.00	Ch.Ramya Bharathi
CRYPTOGRAPHY AND NETWORK SECURITY LAB	135	134	100.00	Dr.A.Radhika, K.Durga Bhavani
SKILL ORIENTED COURSE-IV MEAN STACK TECH	135	134	100.00	Ch.Pavani
EMPLOYABILITY SKILLS-II	135	135	100.00	N.Gayathri Devi
OBJECT ORIENTED ANALYSIS AND DESIGN	135	129	96.99	V.Vijaya Durga
MEAN STACK DEVELOPMENT	135	125	95.42	Ch.Pavani

CSE -HOD

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Department of Computer Science and Engineering (Artificial Intelligence and Machine Learning)

Result Analysis of III B. Tech I Semester (R20)

Dt. 02-03-2024

AY-2023-24 CSE (AI&ML) SEM-I

Description	No. of students	Total No. of students	Percentage
Total subject passed	45	64	70.31
One subject failed	13	64	20.31
Two subjects failed	02	64	3.12

Subject wise Passed Students

Subject Name	No of Students Appeared	No of students passed	Pass Percentage	Faculty Name
CONTINUOUS INTEGRATION AND CONTINUOUS DE	64	64.00	100.00	Dr.A.Radhika
EMPLOYABILITY SKILLS-I	64	64.00	100.00	P.Farzeena Khanan
OPTIMIZATION IN OPERATIONS RESEARCH	64	54.00	84.38	T.Prasanna
COMPILER DESIGN	64	61.00	95.31	R.Lakshmi
OPERATING SYSTEMS	64	60.00	93.75	G.Hema Sudha Rani
MACHINE LEARNING	64	54.00	84.38	Dr.N.Neelima Priyanka
OPERATING SYSTEMS & COMPILER DESIGN LAB	64	64.00	100.00	G.Hema Sudha Rani
MACHINE LEARNING LAB	64	64.00	100.00	Dr.N.Neelima Priyanka
SUMMER INTERNSHIP 2 MONTHS (MANDATORY) A	64	64.00	100.00	Dr.K.Chaitanya
DEVOPS	64	62.00	96.88	Dr.A.Radhika

Radhika
CSE-HOD

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International Journal of Engineering Science and Advanced Technology (IJESAT)
Vol 24 Issue 04, APRIL, 2024

STUDENT COUNSELLING MANAGEMENT SYSTEM USING MERN STACK

[1]Dr.A.Radhika,[2]M.Tejaswini,[3]M.Sai Satyanarayana, [4]S.Pavani, [5]Ch.Deekshitha, [6]Ch.Rupa Sri

[1]Professor , [2,3,4,5]Students, Department of Computer Science and Engineering, SRK Institute of Technology, Vijayawada, A.P, India.

1.Abstract: Counselling system defines the relationship between the mentor and the student. To automate the traditional method where faculty needs to enter the student's data in the paper. The main goal of the project is to reduce the paperwork, maintain transparency between the student and teacher, and to store the details of the student for longer period.

Nowadays, student's institutional information is stored manually. The mentors(counsellor) are allotted to the certain number of students by the admin where the mentor needs to enter the student information like results, attendance, entire information about student in all aspects like certification courses, extra circular activities and co-circular activities done by a student. The students register and then login into their account where their account has been created while registering. The students need to upgrade their certifications by uploading on the website. They need to provide feedback for the institution on the website. Admin needs to map the counsellor and the students, where the mentor gets access to only the allocated student's data like results, attendance, certificates, and additional information. The project provides authentication and security to the given information.

2.Index Words: Mentor, Transparency, Results, Certificates, Attendance, Feedback.

3.Introduction:

Overview: This project is designed in such a way where the mentor enters the student's data. Here the data refers to the attendance and results. The students enter the required information like uploading certificates and giving feedback where the admin maps the students to the respective mentor.

About Project: In this website we use password authentication where the different student's login through their password which is private. The website is designed in such a way to reduce the paperwork and to maintain the transparency between the mentor and student. Here the admin maps the students to the mentor where the admin sets the limit for student and mentor by mapping only certain number of students to the

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E-LIBRARY MANAGEMENT SYSTEM USING DJANGO FRAMEWORK

[1] Dr. Ankala Radhika [2] Kammili Balanandini [3] Noorbasha Mabul Basha
[4] Meripo Sushma Glory [5] Gonela Sannihitha

[1] Professor, Department of Computer Science and Engineering, SRK Institute of Technology, Vijayawada, Andhra Pradesh, INDIA

[2,3,4,5] Students, Department of Computer Science and Engineering, SRK Institute of Technology, Vijayawada, Andhra Pradesh, INDIA

ABSTRACT

The E-library management system project aims to simplify the process of accessing and managing library resources. Users can search for books, check availability, view issued books, and track fines for late returns. Librarians can manage the collection, update information, and check borrowing history for smooth library operations. This system provides a user-friendly interface for quick and easy access to library resources. Students and faculty can search for resources using an internet-connected device, making it more convenient and efficient for both library staff and users. Tracking essential information like issue dates, return deadlines, and fines. This system ends the need for paperwork, streamlining processes and improving overall library efficiency.

Index Terms: E-library, accessing library resources User-friendly interface, Internet-connected device, Library staff, borrowing history, automatic fine allocation.

INTRODUCTION

1.1 Overview

An E-library management system is a software program designed to streamline the organization and functions of a college library. It can help with tasks such as cataloging books, managing library collections, tracking books and returns, and generating fines. The system can also provide a user-friendly interface for students and faculty to search for and access library resources.

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Evaluation of Student Success Across the Subjects using MERN Stack

Dr.A.Radhika[1], K. Aparna[2], P. Sumanth[3], S. Sruthi[4], P. Sushmitha[5]
[1]Professor [2,3,4,5]B.Tech Students, Department of CSE, SRK Institute of Technology, Vijayawada, A.P, India

Abstract: The Evaluation of Student Success across the Subjects is an essential tool in educational institutions, facilitating the efficient management and dissemination of student performance data. This paper presents the design and implementation of a SRMS using the MERN stack, an innovative technology stack comprising MongoDB, Express.js, React.js, and Node.js. The proposed system leverages the full-stack JavaScript environment to enhance the interactivity, real-time data processing, and user experience of the SRMS.React.js is employed on the frontend to provide an intuitive and dynamic user interface, making it easier for users to interact with the system effectively. We discuss the development process, focusing on the integration of these technologies, and demonstrate how the MERN stack facilitates rapid development and deployment of a web-based application. The system's performance is evaluated based on criteria such as response time, data integrity, and user satisfaction. Initial results indicate that the SRMS is not only faster and more reliable but also provides enhanced accessibility and user engagement compared to traditional systems.

This paper aims to contribute to the academic community by providing insights into the application of the MERN stack in developing educational tools, thereby suggesting a pathway for future research and development in educational technology systems.

Keywords: View results, CGPA and SGPA calculations, Number of Backlogs.

I. INTRODUCTION

In educational institutions, the Student Result Management System (SRMS) plays a vital role in managing and sharing student performance data efficiently. This paper introduces the design and implementation of an SRMS using the MERN stack, which includes MongoDB, Express.js, React.js, and Node.js. This project can collect and analyze data on student performance, track individual progress over time, identify areas of improvement, and generate reports for educators and administrators. By using the MERN stack, schools and educational institutions can streamline the evaluation process and provide more personalized support for students across different subjects. A character marks of every scholar must be displayed and revealed at a keystroke in step with any desired format. An essential useful resource for instructors and college students to choose their performance. Merit listing printing via way of means of totals for a category via way of means of character concern marks for a category. Student overall performance in a specific situation or all of the topics should be expressed.

The main motive of this project is to check the results of the students and can declare the merits. The Admin can add and update the details and results when needed. The Admin secure the data. The Faculty can see all Students Results and can know how many students have failed in that particular semester. Every user can make use of portal by entering their Id's and passwords to login and check the student's results. Evaluating student success across subjects involves assessing student performance in different academic disciplines to gain a comprehensive understanding of their overall academic achievements. This process includes reviewing grades, semester sgpa(semester points grade average), cgpa(cumulative grade point average) and percentage, and other relevant metrics to determine how well students are performing in various subjects. By examining student success across subjects, educators can identify strengths and weaknesses of the student, tailor instruction to meet individual needs, and provide targeted support to help students reach their full academic potential.

II. LITERATURE REVIEW

An associated studies is accomplished to research the running of current structures with the intention to circulate in addition with Student result tracking System.

Four present structures are taken into consideration greater relatable to the proposed system. The literature survey is mentioned below:

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ALUMNI MANAGEMENT SYSTEM

Dr. A. Radhika[1], Shaik Mayraaj[2], B. Devisree[3], B. Surendra Sai[4], B. Uma Ganesh[5]

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ABSTRACT
The Alumni Management System facilitates seamless communication and networking within an educational institution's alumni community. It offers comprehensive functionalities for both students and administrators, including registration, profile management, event updates, job updates, and gallery exploration. Administrators benefit from tools for event coordination, feedback analysis, and job posting. The system aims to foster a strong sense of community, supporting career growth, knowledge exchange, and mentorship opportunities. Future enhancements may include social media integration, alumni directory features, and advanced analytics for Alumni engagement tracking, further enhancing its value in nurturing lifelong connections and professional development withinthe alumni network.
Key Words: Alumni, Admin, Student, Registration, Profile Management, Job updates, Event Management, Feedback analysis.

INTRODUCTION

The Alumni Management System aims to set up a website to nurture lifelong communication between students and their institute by knowing the events in their institute and by getting mentor opportunities. In this website, the alumni will first register and then login with the credentials and then the admin willvalidate the registered student information and accept them. By admin acceptance, the alumni will get a confirmation mail along with their login information. Then the alumni can log in at any time with their folks see all the updates from their institute and give feedback. The greatest asset any institution can have is the alumni system. Alumni are the people who represent the institutions in the real world. This is an online website that allows former students to take advantage of the benefits and services that an institution offers after graduation the former students can also know the updates of their institution even after graduation and the alumni can also get the opportunity of mentoring the current students and the students can also raises funds which are useful for institutions. The alumni network is becoming important in the development of the institution because of its vast potential that benefits both the institution and the students. There are many benefits to being an alumni member of a college or institution. Some of these benefits are keeping a person informed on the events that are organized by the institution, getting job updates, meeting their classmates, and when some important events are going to be held in the institution. Another benefit is that the information concerning a former student can easily be received and other members of the alumni community can be located without much difficulty. The students and alumni can communicate with each other and this website is used to build lifelong communication.

LITERATURE REVIEW

1. Lavanya, Supriya, Bhargavi, Aswini, Swarajya Lakshmi authored the paper titled "ALUMNI MANAGEMENT SYSTEM USING WEB TECHNOLOGIES"
This system will be available for general public use through the web interface. A non-registered visitor can look at the list of graduates according to year of graduation. A graduate can use it for the building of his virtual web identity on the internet.

2024 Third International Conference on Intelligent Techniques in Control, Optimization and Signal Processing (INCOS)

Optimization of Natural Language Processing Models for Multilingual Legal Document Analysis

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Abstract—**Multilingual legal document analysis poses unique challenges in the field of Natural Language Processing (NLP) due to the intricacies of legal language and the diverse linguistic landscape of legal texts across jurisdictions. This paper presents an optimization framework designed to enhance the performance of NLP models specifically tailored for multilingual legal document analysis. The proposed framework incorporates advanced techniques in pre-processing, feature engineering, and model architecture to address the complexities inherent in legal language. Leveraging multilingual embeddings and domain-specific knowledge, the model demonstrates improved accuracy in tasks such as named entity recognition, sentiment analysis, and document categorization across a range of languages. Additionally, the optimization framework emphasizes the importance of domain adaptation, acknowledging the nuances and variations in legal terminology across different legal systems. Through a combination of transfer learning and fine-tuning strategies, the model adapts to specific legal domains, ensuring robust performance in diverse legal contexts. Experimental results on a comprehensive dataset of multilingual legal documents validate the effectiveness of the proposed optimization framework. Comparative analyses with baseline models showcase significant improvements in precision, recall, and overall model performance. The findings underscore the potential of the optimized NLP model for applications in legal information retrieval, contract analysis, and legal knowledge management in a multilingual context. This research contributes to the growing body of knowledge in NLP and legal informatics, offering a valuable resource for researchers, practitioners, and developers working on multilingual legal document analysis. The optimized model presented in this paper has the potential to enhance the efficiency and accuracy of automated systems in handling legal texts across diverse linguistic environments.**

Keywords—Natural Language Processing (NLP),Multilingual Legal Document Analysis, Document Categorization, Transformer-based Models, BERT

I. Introduction

An increasing number of jurisdictions are producing digital legal documents on an exponential scale, which highlights the need for sophisticated Natural Language Processing (NLP) models that can analyse multilingual legal texts efficiently. Due to its specificity, intricacy, and jurisdiction-specific nuances, legal language presents particular difficulties for automated comprehension[1]. The creation of NLP models specifically designed for the analysis of multilingual legal documents is becoming more and more necessary as scholars and legal professionals struggle with the enormous amounts of legal data.In order to extract pertinent information, comprehend intricate legal ideas, and make well-informed decisions, legal practitioners must analyse legal texts. The number of multilingual legal writings and growing globalisation have increased the need for efficient Natural Language Processing (NLP) models that can handle a wide range of languages and legal subtleties. Through the optimisation of current NLP models, this research seeks to solve the difficulties involved in the interpretation of multilingual legal documents[2]. The framework covers a number of topics, including as domain-specific embeddings, cross-lingual transfer learning, dataset considerations, model architecture, and ethical issues.A unique category of papers, legal texts are distinguished by the intricate interactions between language patterns, specialised terminology, and subtle contextual meanings.

Natural language processing (NLP) models are confronted with substantial problems when it comes to the complexities of legal language, which necessitate a profound comprehension of both the legal context in which these texts are situated and linguistic subtleties[3].Although NLP models have shown a great deal of success in a variety of applications, there hasn't been much research done on how well they work in the multilingual legal realm. Language-specific legal jargon, cultural variances, and different legal systems all add levels of intricacy to multilingual legal documents. A distinct set of difficulties that call for specific attention are presented by the complexities of translating legal concepts while maintaining their intended meanings in other languages.The field of multilingual NLP has witnessed significant advancements in recent years, with the development of transformer-based models such as BERT (Bidirectional Encoder Representations from Transformers)[4]. These models, pre-trained on large and diverse text corpora, have demonstrated remarkable capabilities in capturing contextual information and understanding language nuances across multiple languages.However, the adaptation of these advanced NLP models to the domain of legal text processing remains a relatively unexplored frontier. Legal documents often contain highly specialized vocabulary, intricate syntactic

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(4)

Social media Based cyber bullying detection

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Professor, Department of Computer Science and Engineering, SRK Institute of Technology, Vijayawada, Andhra Pradesh, INDIA

ABSTRACT
Increasing internet use and facilitating access to online communities such as social media have led to the emergence of cybercrime. Cyber bullying is a pervasive issue on the internet, affecting both teenagers and adults, and leading to severe consequences such as suicide and depression. The need for stricter content regulation on social media platforms has become increasingly apparent. This study addresses the problem of cyber bullying by utilizing data from two different forms: hate speech tweets from Twitter and comments containing personal attacks from Wikipedia forums. The research focuses on building a robust cyber bullying detection model using Natural Language Processing and machine learning. Three distinct methods for feature extraction and four classifiers are thoroughly examined to identify the most effective approach. This proposed system aims to provide a proactive solution for the detection and prevention of cyber bullying, thereby promoting a safer online environment
Keywords: Machine Learning, Cyberbullying, Social Media, Twitter.

INTRODUCTION
Cyber bullying is bullying online. Most of the time, if not all the time over social media. Cyber bullying is often not physical, which means that the people being cyber bullied feel mental pain instead of physical. Cyber bullying started when social media was made, and there's been more and more cases since. Cyber bullying expresses the acts of the slanders, gossips, threaten harassment, insult, abashing and excluding someone on the digital world. It is a new generation bullying. Cyber bullying has influence on people more psychological. Seventy percent of people are exposed to cyber bullying every year .It is usually being done via fake accounts. Some people who are exposed to cyber bullying are thinking of suicide. Authorities and parents have to talk to children about cyber bullying .They should listen to them without judging. Adults should be role model about respecting the others. Children have to be taught to fight with cyber bullying. People who are suffering from cyber bulling should be encouraged to talk about what they live. We mustn't be a cyber-bully. Cyberbullying on social media platforms is a pervasive issue with limited and often ineffective content moderation Mechanisms. The main drawbacks of the existing system are Limited Detection Capabilities that is the existing system relies on basic and outdated methods, resulting in suboptimal cyberbullying detection capabilities, often failing to identify nuanced forms of online harassment. Due to the lack of real-time monitoring and preventive measures, the current system provides delayed responses, allowing cyberbullying incidents to escalate before any intervention occurs, so to address the shortcomings of the existing system by employing advanced Natural Language Processing and machine learning techniques to detect and prevent cyberbullying more effectively. To perform this the present existing system follows different plan of actions such as Gathering extensive datasets from various social media platforms, including Twitter and Wikipedia, containing examples of cyberbullying. Data Preprocessing to implement data cleaning, text normalization, and feature extraction techniques to prepare the data for analysis. From those preprocessed data different methods are explored for feature extraction that includes TF-IDF, word embeddings, and sentiment analysis. Model Selection is done by evaluating multiple machine learning algorithms and

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Evaluation of Student Success Across the Subjects using MERN Stack

Dr.A.Radhika[1], K. Aparna[2], P. Sumanth[3], S. Sruthi[4], P. Sushmitha[5]
[1]Professor, [2,3,4,5]B.Tech Students, Department of CSE, SRK Institute of Technology, Vijayawada, A.P, India

Abstract: ***The Evaluation of Student Success across the Subjects is an essential tool in educational institutions, facilitating the efficient management and dissemination of student performance data. This paper presents the design and implementation of a SRMS using the MERN stack, an innovative technology stack comprising MongoDB, Express.js, React.js, and Node.js. The proposed system leverages the full-stack JavaScript environment to enhance the interactivity, real-time data processing, and user experience of the SRMS.React.js is employed on the frontend to provide an intuitive and dynamic user interface, making it easier for users to interact with the system effectively. We discuss the development process, focusing on the integration of these technologies, and demonstrate how the MERN stack facilitates rapid development and deployment of a web-based application. The system's performance is evaluated based on criteria such as response time, data integrity, and user satisfaction. Initial results indicate that the SRMS is not only faster and more reliable but also provides enhanced accessibility and user engagement compared to traditional systems.***

This paper aims to contribute to the academic community by providing insights into the application of the MERN stack in developing educational tools, thereby suggesting a pathway for future research and development in educational technology systems

Keywords: View results, CGPA and SGPA calculations, Number of Backlogs.

I. INTRODUCTION

In educational institutions, the Student Result Management System (SRMS) plays a vital role in managing and sharing student performance data efficiently. This paper introduces the design and implementation of an SRMS using the MERN stack, which includes MongoDB, Express.js, React.js, and Node.js. This project can collect and analyze data on student performance, track individual progress over time, identify areas of improvement, and generate reports for educators and administrators. By using the MERN stack, schools and educational institutions can streamline the evaluation process and provide more personalized support for students across different subjects. A character marks of every scholar must be displayed and revealed at a keystroke in step with any decided on format. An essential useful resource for instructors and college students to choose their performance. Merit listing printing via way of means of totals for a category via way of means of character concern marks for a category. Student overall performance in a specific situation or all of the topics should be expressed.

The main purpose of this project is to check the results of the students and can declare the merits. The Admin can add and update the details and results when needed. The Admin secure the data. The Faculty can see all Students Results and can know how many students have failed in that particular semester. Every user can make use of portal by entering their Id's and passwords to login and check the student's results. Evaluating student success across subjects involves assessing student performance in different academic disciplines to gain a comprehensive understanding of their overall academic achievements. This process includes reviewing grades, semester spga(semester points grade average), cgpa(cumulative grade point average) and percentage, and other relevant metrics to determine how well students are performing in various subjects. By examining student success across subjects, educators can identify the strengths and weakness of the student, tailor instruction to meet individual needs, and provide targeted support to help students to reach their full academic potential.

II. LITERATURE REVIEW

An associated studies is accomplished to research the running of current structures with the intention to circulate in addition with pupil end result tracking System.

Four present structures are taken into consideration greater relatable to the proposed system. The literature survey is mentioned below:

Skill AP
APSSDC

EXCELR
Raising Excellence

CERTIFICATE

OF PARTICIPATION

This is to certify that

Dr. A Radhika

participated in 5 Day's Online International Faculty Development Program on Data Analyst organized by Andhra Pradesh State Skill Development Corporation (APSSDC) in Collaboration with ExcelR.

Date: 19th June 2023 to 23rd June 2023

Dr Ravi Gujjula
CGM Technical, APSSDC

Ram Tavva
CEO ExcelR Solutions

EDL
Everyday Learning

Reg/Cert No. 52019/FDP/EXLR/0407**7**2023

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September 10th, 2022

Signing Authority

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THE EXECUTIVE COUNCIL, HAS APPROVED AND ADMITTED

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FACULTY PERFORMANCE APPRAISAL FORM

Performance Based Appraisal System (PBAS) for Associate Professors
As per UGC Guidelines 2010
For the period 2023 to 2024
Summary Sheet

Name of the Faculty: Dr. G. D k. kishore
Department: Infomation Technology (IT)

S.No.	Evaluation parameter	Max API Score	Minimum Score required	Self-Score	DFAC Score	IASC Score
1	Service in the College	50	----	25	25	25
2	Curricular Activities	400	----	380	380	380
3	Co-Curricular Activities	150	----	70	70	70
4	Research &Development	250	50	–	–	–
5.	Administrative and Extra-curricular activities	150	----	145	145	145
Total		1000	550	620	620	620

Signature of faculty			
Signature(s) DFAC members	1	2 Lakshmi	3
Signature(s) of IASC members	1	2 T.	3 S. Sri Gouri

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FACULTY PERFORMANCE APPRAISAL FORM

PART - A

Service in the College

Maximum API Score:: 50

1 Personal Details:

1.	Name	Dr. G. D.k. kishore
2.	Present Designation	Associate Professor
3.	Name of the Department	Information Technology
4.	College level administrative post (if any)	
5.	Employee Identification Number	INF01
6.	Date of Appointment to the present post	Associate Professor (HOD)
7.	Date of birth	June 20 1984
8.	Address	Balaji Nagar, krishnalanka
9.	Contact details	E-mail : krishna.gallal@gmail.com Telephone : Mobile : 9494943353

2 Educational qualifications (starting from degree):

Programme	Period of study	University	Marks/CGPA	Class obtained
P.G	2008-2010	JNTUK		first
B.Tech	2002-2006	JNTUK		first

3 Experience (starting from present position):

S.No.	Designation	Institution	From	To
1.	Associate professor	SRKIT	2022	till date
2.	Assistant professor	SRKIT	2014	2022

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PART-B
PART I – Curriculum Activities

Maximum API Score: 400

1.1. Teaching weekly load allotted by the department as per time table

Semester-I		Semester-II		Total load	Average of weekly load
Name of the course	Weekly Load	Name of the course	Weekly Load		
AUP	7	S with R	6		
M-commerce	5				
	12		6		
Total load					18

Score details for 1.1	Maximum score	Self-score	DFAC score	IASC score
	50	50	50	50

1.2. Total lecture periods taken in the previous two semesters

Semester-I			Semester-II		
Name of the course	T/P	Score	Name of the course	T/P	Score
AUP	50/50	1	S with R	50/50	1
M-commerce	50/50	1			
Average score of semester-I		1	Average score of semester-II		1
Final score = Average score of two semesters					

T: Number of lectures taken as per concerned course attendance register
P: Number of lectures proposed in the concerned course lesson plan
Score = T/P * 20

Score details for 1.2	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

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1.3. Course files (All the claimed contents should be available in the course file)

S.No	Contents of course file	Weightage points per course per semester	Maximum points per semester	Semester-I		Semester-II	
				Course Name	Course Name	Course Name	Course Name
1	Syllabus page	0.5	1.5	1		1	1
2	Lesson plan	1	3	2		2	2
3	Lecture Notes	3	9	6		6	6
4	Question bank (Unit wise)	2	6	4		4	4
5	Internal examination question papers with CO mapping	1	3	3		3	3
6	Internal examination marks copy	0.5	1.5	1		1	1
7	Internal examination CO, PO assessment	2	6	4		4	4
8	End Semester results copywith Analysis	1	3	2		2	2
9	End semester examination CO, PO assessment	2	6	4		4	4
10	Improvements to be brought in next time course delivery	1	3	3		3	3
11	Assignment questions with CO mapping	1	3	2		2	2
12	Course End Survey evaluation	1	3	2		2	2
13	Scheme of evaluation for end semester examination	3	9	6		6	6
14	Any other (with approval of IASC)	1	3				
Maximum points		20	60	40		40	40
Total of Semester-I &Semester-II							
Average of Semester-I &Semester-II							

Score details for 1.3	Maximum score	Self-score	DFAC score	IASC score
	60	60	60	60

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1.4. External examination invigilation / evaluation duties

Nature of the Duty Performed	Points per duty	Number of duties performed		Total number of duties performed	Total points
		Semester-I	Semester-II		
External examination answer sheets evaluation	5	5	5	10	10
External examination invigilation	1	5	5	10	10
Lab external examination examiner	5	5	5	10	10
Seminar- – Internal examiner	5				
Mini Project– Internal examiner	5				
Major Project – Internal examiner	5	5	5	10	10
Term Paper – Internal examiner	5	5	5	10	10
Any other works*	1				
				Total points	50

*Any other works related to external examination with approval of IASC

Score details for 1.4	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.5. Internal examination invigilation / evaluation duties

Nature of the Duty Performed	Points per duty	Number of duties performed		Total number of duties performed	Total points
		Semester-I	Semester-II		
Internaldescriptive examination answer sheets evaluation	1	2	2	4	4
Internalobjective examination answer sheets evaluation	1				
assignment books evaluation	1	10	5	15	15
Internalexamination invigilation	1	10	10	20	20
Lab internal examination examiner	1	1	1	2	2

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Score details for 1.5	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.6. Use of innovative teaching methodologies

Teaching methodology	Number of points per course per semester	Max. points per semester	Semester-I points	Semester-II points	Average points of two semesters
Power point presentations with own annotations and minimum 10 slides per course per semester	5	10	10	10	10
Visuals (Topic Related own video/simulation created)	5	10	10	10	10
Entire course content uploaded in MOODLE server	10	20			
				Total points	20

Note: All teaching methodology works should be recorded in the teaching diary of concerned course attendance register and proofs should be authorized by HoD.

Score details for 1.6	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.7. Remedial classes / Bridge Courses / Content beyond syllabus / Etc.

Details of item	Semester – I			Semester - II			Average of semester-I and semester-II points
	Name of the course	No. of classes taken	Semester – I points	Name of the course	No. of classes taken	Semester – II points	
Remedial classes	AVP	5	10	s with R	5	10	10

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Bridge courses							
Career oriented course							
Content Beyond Syllabus	AUP	5	10	S with R	5	10	10
Additional experiments designed and conducted beyond curriculum	Project I	2	10	Project 2			5
Job oriented Certificate Courses							
						Total points	25

Details of item	Minimum classes required	Points per class	Maximum points
Remedial classes	5	2	10
Bridge courses	5	2	10
Career oriented course	5	2	10
Content Beyond Syllabus	5 concepts	2	10
Additional experiments designed and conducted beyond curriculum	2 experiments	5	10
Job oriented Certificate Courses	10	1	10

Score details for 1.7	Maximum score	Self-score	DFAC score	IASC score
	10	10	10	10

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1.8. Mentoring with proper records

Item	Semester I	Semester II	Total No. of sessions taken	Points per session	Total score
No. of counseling sessions done	5	5	10	5	50

Note: Mentoring record should be in faculty hand writing only. Otherwise don't consider.

Score details for 1.8	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.9 Percentage of passes

Semester – I			Semester - II		
Name of the course	Percentage of pass	Points per course	Name of the course	Percentage of pass	Points per course
AUP	76·19		Swith R	95·71	18·71
M-Course	100				
Average points of semester-I		25	Average points of semester-II		30
Total points = Average of semester I & II points =					

Note: Don't include laboratory courses here.

Percentage of pass	<55%	55-64.99%	65-74.99%	75-85%	>85%
points	10	15	20	25	30

Score details for 1.9	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

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1.10. Student feedback on teaching

Semester – I			Semester - II		
Name of the course	Feedback obtained	Points per course	Name of the course	Feedback obtained	Points per course
• AUP	97.57	18.71	SwithR	97.57	18.71
M-Commerce	98	19			
Average points of semester-I		98	Average points of semester-II		97
Total points = Average of semester I & II points =			97%		

Note: Feedback for laboratory courses also can be included here

Feedback	<3	3 to 3.49	3.5 to 3.99	4 to 4.49	4.5 to 5
points	10	15	20	25	30

Score details for 1.10	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

1.11 Project Guidance (Mini project/major project/seminar/term paper)

Semester – I			Semester - II		
Batch – I			Batch - I		
Title of Project: E-commerce chatbot fa price Negotiation using NLP			Title of Project: Virtual House operations using webcam		
Register no's of students	Grade	Score	Register no's of students	Grade	Score
20X41A1223	A	25	20X41A1211	A	25
20X41A1263	A	25	20X41A1214	A	25
20X41A1242	A	25	20X41A1260	A	25
20X41A1244	A	25	21X45A1208	A	25
Average score of Batch-1 in		100	Average score of Batch-1 in		100

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semester-I (B1)	100	semester-II (B2)	100

Average score of batch-1 in two semesters (S): (B1+B2)/2 =

Batch – 2			Batch - 2		
Title of Project: A deep learning Approach with streamlit Integration			Title of Project: A Block chain Based fake product Verification system		
Register no's of students	Grade	Score(S1)	Register no's of students	Grade	Score(S2)
20X41A1210	A+	5	20X41A1218	A+	5
20X41A1234	A+		20X41A1207	A+	
20X41A1232	A+		20X41A1202	A+	
20X41A1216	A+		20X41A1237	A+	
20X41A1253	A+		20X41A1248	A+	

Overall score = S+S1+S2+P = 100+5+5+20 = 125

P = 20 points if SCI/Scopus paper (journal / conference) published from the work of the project (This publication should not be shown under Part – 3)

Project Grade	A+	A	B	C
Points	30	25	20	15

Score details for 1.11	Maximum score	Self-score	DFAC score	IASC score
	50	50	50	50

1.12. NPTEL/MIT/COURSERA/edx/UDACITY courses completed

Title of the course	Offered by	Duration of course with dates	Percentage of marks obtained	Points obtained	Average points of one semester	Average points of two semesters
Semester = I						
		Nill				

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Semester = II						
		Nill				

Note: Full course of at least 6 weeks duration only to considered.
Points for a course with exam: 20*Percentage of marks obtained
Points for a course without exam: 10

Score details for 1.12	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

1.13. Involvement of Faculty in syllabus framing (BOS)
For BOS members:
Date(s) of BOS meeting attended:_____ Points:20
For non-BOS members:
Title of course(s) for which syllabus prepared:_____
Points: 10 for each course

Score details for 1.13	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.14 MOU's / Student Internships

Name & Regd. no. of student received internship through your guidance	Organization name	Duration of internship	Amount received by student for internship	Points
Total points				

Online Internship (including internshala): 5 points per student (Max.: 20 points)
Industry internship (offline): 15 points per student (Max.: 30 points)

Details of MOU	Validity of MOU (Mention date(s))	Internships received through MOU	Amount received by student (paid internship) for	Points

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			internship through MOU	
Total points				

Each functional MOU: 10 points
Internship received through MOU: 10 points/student (paid internship only)
Internship received through MOU: 5 points/student (non-paid internship)

Score details for 1.14	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

Total score of part–I

Item no.	Maximum score	Self-score	DFAC score	IASC score
1.1	50	50	50	50
1.2	20	20	20	20
1.3	60	60	60	60
1.4	20	20	20	20
1.5	20	20	20	20
1.6	20	20	20	20
1.7	10	10	10	10
1.8	20	20	20	20
1.9	30	30	30	30
1.10	30	30	30	30
1.11	50	50	50	50
1.12	20			
1.13	20	20	20	20

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1.14	30	30	30	30
Total score of part-I	400	380	380	380

Part - II Co-Curricular Activities

Max. Score: 150

2.1Membership of professional societies

Membership offered professional society	Membership number	National / International	Points
CSI	11502757	International	10
		Total points	10

Note: International membership=10; National membership=5 points, Don't include online free memberships.

Score details for 2.1	Maximum score	Self-score	DFAC score	IASC score
	10	10	10	10

2.2 Departmental development of facilities

Development of facilities	Details of development undertaken	Semester–I	Semester – II	Total score
a) Laboratory infrastructure up gradation/New Experiment Setup Including MODROB (Utilization of budget)				
b) Common student facilities – Class Room Services, Basic Amenities, Seminar/Common Halls etc.				
c) Addition & use of new software				
d) Any Other - authorized by IASC with the approval of Principal				
			Total score	

Principal participant = 5 points per semester; others = 2.5 points per semester

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Score details for 2.2	Maximum score	Self-score	DFAC score	IASC score
	10	—	—	—

2.3 Attending or organizing various activities:
Conferences / Seminars / workshops/ FDPs / skill development course / certificate courses / industry training and other similar items

Attended / Organized	Dates From	Dates To	No of Days	Title, Place, Month & year details	Points
Attended	6/5/24	11/5/24	6	Research Personal writing AI tools	20
Attended	26/4/24	27/4/24	2	a deep learning Approach with shuffle	20
Attended	26/4/24	27/4/24	2	n Block chain Based take product identification System	20
Total points					60

Maximum points for attending various events: 30
Maximum points for organizing various events: 30

Score details for 2.3	Maximum score	Self-score	DFAC score	IASC score
	60	60	60	60

2.4 Guest Lectures/webinar attended, organized or delivered

Attended / Organized / Delivered	Dates From	Dates To	Title, Place, Month & year details	Points
			Nill	
			Total points	

Score details for 2.4	Maximum score	Self-score	DFAC score	IASC score
	20	-	—	—

2.5 Accompanied students on industrial tours

Date(s)	Places visited	No. of days	Points
	Nill		

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Total points			

One day trip: 5 points; More than one day trip: 10 points

Score details for 2.5	Maximum score	Self-score	DFAC score	IASC score
	10	—	—	—

2.6 Student technical events organized

Name of the event	Date(s)	Role	Points
	NIL		

Role(s): Department coordinator: 10 points, Event coordinator: 5 points, Others: 2.5 points

Score details for 2.6	Maximum score	Self-score	DFAC score	IASC score
	10	—	—	—

2.7 Student innovations; Guidance

Details of student innovation	Place of participation	Date(s) of participation	Points
	NIL		

Score details for 2.7	Maximum score	Self-score	DFAC score	IASC score
	10	—	—	—

2.8 Consultancy

Name of the company to which consultancy provided	Amount earned	Total amount	Points

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< Rs. 25000/- 2.5 points ; 25000 to 50000 – 5 points ; 50000 to 100000 – 7.5 points ; 100001 1000000 – 10 points; more than 1000000 – 20 points

Score details for 2.8	Maximum score	Self-score	DFAC score	IASC score
	20	–	–	–

Total score of part- II

Item no.	Maximum score	Self-score	DFAC score	IASC score
2.1	10			
2.2	10	10	10	10
2.3	60	60	60	60
2.4	20			
2.5	10			
2.6	10			
2.7	10			
2.8	20			
Total score of part-II	150	70	70	70

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Part – III R &D Related Contributions

Max. Score: 250 (Min. score required: 50)

3.1 Research Publications

Book / Book chapter (Indexed by SCIE / Scopus / UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names			
	Name of the book / book chapter			
	Publisher details			
	ISBN no.			
	Page no(s), Month & Year of publication	NIL		

Points: Book: SCIE - 50, Scopus – 40, UGC – 30
Points: Book chapter: SCIE - 40, Scopus – 30, UGC – 20

Paper publication(s) in journals (Indexed by SCIE / Scopus / UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names			
	Name of the paper	NIL		
	Publisher details			
	ISSN no.			

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	Page no(s), Month & Year of publication			

Score details for 3.1	Maximum score	Self-score	DFAC score	IASC score
	80	—	—	—

3.2 Sponsored Research projects

Details of investigators	Name of the project	Sanctioning agency	Amount sanctioned / applied	Date of application	Project sanctioned / result awaited	Points
			Nil			
					Total points	

Project amount	Sanctioned (points)	Result awaiting (points)	No. of investigators allowed
More than Rs.20 Lakhs	40	12	5
Rs.10 Lakhs – 20 Lakhs	30	09	4
Rs.5 Lakhs -10 Lakhs	20	06	2
< Rs.5.0 Lakhs	10	03	2
SAGTE projects	10	--	2

Score details for 3.2	Maximum score	Self-score	DFAC score	IASC score
	70	—	—	—

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3.3 Conferences / symposia papers presented

Conference proceedings (Indexed by SCIE / Scopus, UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names			
	Name of the paper			
	Conference details			
	Month & Year of conference	NIL		

Score details for 3.3	Maximum score	Self-score	DFAC score	IASC score
	30			

3.4 Patents

Details of inventors	Title of the patent	Patent registering agency	Month and year of patent	Published / Granted	Points
		NIL			
				Total points	

Score details for 3.4	Maximum score	Self-score	DFAC score	IASC score
	20	—	—	—

3.5 Incubation center established

Details of incubation center	Month & Year of	Points

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	establishment	

Max points: 10; Principal coordinator: 100%; others (with active participation)=80%
Active Participation as certified by Coordinator and HOD

	Maximum score	Self-score	DFAC score	IASC score
Score details for 3.5	20	Nill		

3.6 Centre of Excellence established

Details of centre of excellence	Month & Year of establishment	Points
	Nill	

Max points: 10; Principal coordinator: 100%; others (with active participation)=80%
Active Participation as certified by Coordinator and HOD

	Maximum score	Self-score	DFAC score	IASC score
Score details for 3.6	20			

3.7 Ph.D related activities

Ph.D awarded under your guidance — 10 points

Details of scholar	Awarding university	Date & month of Ph.D award
	Nill	

	Maximum score	Self-score	DFAC score	IASC score
Score details for 3.7	10	—	—	—

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Total score of part- III

Item no.	Maximum score	Self-score	DFAC score	IASC score
3.1	80			
3.2	70			
3.3	30			
3.4	20			
3.5	20			
3.6	20			
3.7	10			
Total score of part-III	250			Nil

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PART-IV Administrative and Extra-curricular activities

Max. Score: 150

4.1 Departmental Administration

S.No.	Activity	SEM-I	SEM-II	Total points
1.	In-charge of time tables (10 /sem)			
2.	Attendance in-charge(10/sem)	5	5	10
3.	Internal marks in-charge(10/sem)	5	5	10
4.	Mini / Major Project Coordinator/Review Members	5	5	10
5.	Exams In-charge (10)	10	10	20
6.	Library in-charge			
7.	Lab In-charge	5	5	10
8.	Discipline(class teacher)			
9.	Professional Society Related Coordinators (Based on the events conducted)/Department Association			
10.	Module / Course Coordinator			
11.	Departmental R&D Coordinator			
12.	Media Coordinator	5	5	10
13.	Departmental News Letter Editor/Members			
14.	ISO (Coordinator)			
15.	TEQIP Coordinator			
16.	Alumni Coordinator			
17.	NBA/NAAC Participation(10 /sem)	10	10	20
18.	Grievance cell			
19.	Anti-ragging Committee	5	5	10
20.	Vigilance	5	5	10
21	Programme Coordinator(15 /sem)*	15	15	30
22	Answer script in-charge			
23	Induction day	5	5	10
24	Farewell day	5	5	10
25	Any Other - authorized by chairman CAS standing committee with the approval of Principal			
			Total points	180

Each activity = 5 points per year; 2.5 points per sem; Coordinator =100%; others = 50%

Score details for 4.1	Maximum score	Self-score	DFAC score	IASC score
	40	40	40	40

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4.2 Institutional level administration

S.No.	Activity	SEM-I	SEM-II	Total points
1.	NBA Participation(NBA Common Criteria Preparation Coordinators)	5	5	10
2.	NAAC	5	5	10
3.	Autonomous/Examination Section	5	5	10
4.	TEQIP Nodal Officers			
5.	R&D Committee Member/Paper Incentive Member	5	5	10
6.	Maintenance of Central facilities (telephone, internet, electrical, water works, hostel, Sports etc.)			
7.	Career Guidance Cell	5	5	10
8.	Grievance cell anti ragging	5	5	10
9.	ISO Co-ordinator			
10.	Any other such as Hostel Warden etc.,			
			Total points	60

Each activity/sem = 5 points; Coordinator=100%; others=50%

Score details for 4.2	Maximum score	Self-score	DFAC score	IASC score
	50	45	45	45

4.3 Institutional Events Organization members, Sports Participants

S.No.	Activity	SEM-I	SEM-II	Total points
1.	Annual day	5	5	10
2.	Cultural activities	5	5	10
3.	Sports participation	5	5	10
4.	Any Other as approved by IASC and by Principal approved	5	5	10
			Total points	40

Each activity = 5 Points/sem;

Score details for 4.3	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

4.4 NSS / NCC / Other Service activities

S.No.	Activity	SEM-I	SEM-II	Total points
1.	NCC / NSS activities			
2.	NSS/ NCC Coordinator(10)			
3.	Women grievance cell activities			

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4.	Health camps			
5.	Blood camps			
6.	Service to poor			
7.	Service to Disabled			
8.	Charity camps etc.			
9.	Any Other as approved by IASC and by Principal approved	5	5	10
			Total points	10

Each activity = 5 points/sem

Score details for 4.4	Maximum score	Self-score	DFAC score	IASC score
	10	5	5	5

4.5 Training & other Misc. activities

S.No.	Activity	SEM-I	SEM-II	Points
1.	Training and placements- Departmental T&P Coordinator=20 points; others = 10 points			
2.	Institute News letter Editorial board: 10 points; ArticleContributors:5 points(From Dept):	10	10	20
3.	Material contribution to news letter/Annual Day Report/House Journal from Department ArticleContributors:5 points(From Dept)			
4.	Any Other as approved by IASC and by Principal approved			
			Total points	20

Score details for 4.5	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

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25

Total score of part- IV

Item no.	Maximum score	Self-score	DFAC score	IASC score
4.1	40	40	40	40
4.2	50	45	45	45
4.3	30	30	30	30
4.4	10	5	5	5
4.5	20	20	20	20
Total score of part-IV	150	145	145	145

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Batch-16

http://www.jartms.org E-ISSN: 2582-3078 Volume: 06 Issue: 03, March 2024

Virtual Mouse Operations Using Webcam

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SRK Institute of Technology, Department of Information Technology [1,2,3,4,5]
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[illegible]@gmail.com [5]

Abstract-This abstract introduces an innovative paradigm for computer interaction that substitutes traditional input modalities such as physical mice and touch displays with Hand Tracking and Gestures. Our system, which was constructed using the Open CV library and Python, implements computer vision techniques in order to monitor hand movements that are captured by a webcam. Sophisticated gesture recognition algorithms are utilized to convert these hand movements into mouse controls, thereby enabling users to navigate the system and perform mouse operations in an intuitive manner. Additionally, our system expands its practicality beyond the conventional capabilities of the mouse by integrating hand gestures for volume control, thus enhancing the overall user experience. By leveraging sophisticated computer vision methods, this strategy integrates gestural input into computing environments in a seamless manner, resulting in a moreuser-friendly and effective interaction paradigm. Through the utilization of gesture recognition and hand tracking, our system showcases the capacity to fundamentally transform paradigms of human-computer interaction, especially in situations where conventional input techniques may prove to be laborious or unfeasible.

Keywords— Hand Tracking, Gestures, Virtual Mouse Interface, Computer Vision, Open CV, Python.

I. INTRODUCTION

Amidst the dynamic realm of computer technology, there is a persistent surge in the need for human-computer interaction methods that are both intuitive and efficient. With the increasing prevalence of touch screen interfaces, which provide smooth interaction for specific applications, there continues to be a widespread requirement for alternative input modalities that surpass the drawbacks of expensive implementations and accessibility restrictions. The advent of virtual mouse systems, which utilize hand gestures captured by webcams, presents itself as a potentially effective resolution to this obstacle. The principal aim of this study is to construct a resilient virtual mouse system that possesses the ability to accurately and fluidly manipulate the computer cursor by interpreting hand gestures in real-time. In contrast to conventional input devices like physical mice or touchpads, this system provides users with a more flexible and intuitive mode of interaction by removing the need for physical hardware. At the core of the system's operation lies its capacity to precisely detect and convert hand gestures into cursor movements that appear on the screen. This involves implementing a system that not only recognizes the subtleties of hand gestures but also allows users to effortlessly execute routine mouse actions such as scrolling, clicking, and other navigational functions. One of the primary concerns investigated in this study is the assurance of the system's resilience in the face of diverse user demographics and environmental circumstances. The system strives to ensure consistent performance and efficacy in a variety of environments by addressing factors such as lighting variations, background clutter, and differences in hand sizes and shapes. Moreover, this study emphasizes the wider importance of exploring novel approaches to input methods. Although touch screen interfaces undeniably provide numerous benefits, their extensive implementation is frequently impeded by exorbitant expenses and unsuitability for specific use cases. Likewise, physical rodents, despite their widespread use, possess certain drawbacks with regard to their adaptability and availability. Given these factors into account, the creation of a virtual mouse system signifies a critical stride towards democratizing computer interaction; it provides users with an adaptable and easily navigable method of navigating digital environments. By means of careful planning and execution, this study aims to redefine the limits of human-computer interaction in order to promote a computational environment that is both efficient and inclusive for all participants.

II. METHODOLOGY

In the beginning, hand gesture recognition systems utilize cameras to acquire images. Subsequently, they employ various interfaces, such as position sensors or data gloves, to monitor the movements of the hands. In spite of the fact that

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BATCH - II

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E-commerce Chatbot For Price Negotiation Using NLP

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Abstract: **Price Negotiating Chatbot with text and voice functions is available in this article. The setting is an e-commerce platform. The chatbot makes easy and effective negotiations possible for consumers and the platform by understanding voice commands and providing clear pricing information. Voice or text interactions allow users to participate in conversations, providing flexibility and simplicity. The platform provides a well-organized user experience from product browsing to purchase confirmation, increasing user engagement and delight. Adding order management and sentiment analysis functionality boosts the platform's value. Chatbots have greatly improved user experiences and transactional procedures in e-commerce. This is a great innovation and improvement.**

Keywords: Price Negotiating Chatbot, Text and Voice Interaction, E-commerce Platform, User Engagement, Negotiation Efficiency

I. INTRODUCTION

E-commerce is competitive and consumer expectations are rising, thus the ability to negotiate price may be vital to sales and customer satisfaction. E-commerce is marked by rising customer expectations. Given the conditions, price negotiation may be helpful. Traditional methods are utilised for pricing negotiations. These approaches usually include buyer-seller contact. This contact may take a long time, and the results may not be beneficial to both sides. Chatbots with text and speech interfaces may make negotiations easier and faster. It also solves the issue practically. In recognition of mandatory procedures, this is done.

Chatbots have transformed customer service in several organisations. This is because chatbots respond instantly and are customised to each user. Natural language processing (NLP) and machine learning techniques allow chatbots to conduct meaningful conversations, understand user preferences, and provide relevant information or support. Chatbots can do all these duties. Chatbots are used in e-commerce to provide customer assistance, track orders, and recommend products.

However, chatbots in price negotiating are understudied. The capacity to dynamically negotiate rates based on product demand, inventory levels, and customer preferences might greatly enhance online purchasing. Using text and audio interfaces makes bargaining skills more accessible. This lets users with different communication preferences and accessibility needs be served simultaneously. This article recommends a new online pricing negotiation strategy. Here, a chatbot that can engage with clients via text and voice chatting is being created. The solution simplifies negotiation by letting people connect with the chatbot in a simple and comfortable manner. A dataset of product price and negotiation strategies is utilised by the chatbot to deliver information. Next, complex algorithms are used to generate price suggestions and engage customers in fee negotiations and this is achieved by using the dataset.

User feedback and empirical evaluation are utilised to prove the pricing negotiating chatbot is useful and usable. Thus, chatbots may change how clients engage with e-commerce sites. This research developed the field of conversational agents in e-commerce and created new options to improve customer experiences while making electronic transactions.

II. LITERATURE REVIEW

E-commerce is being transformed by chatbots' improved consumer involvement and business operations. Chatbots may provide new solutions and both advantages helped build chatbots. This part covers chatbot, e-commerce negotiation, and voice/text interface literature to complete the study environment overview. It seeks to identify major scientific gaps immediately.

"Integrating Intellectual Consciousness AI based on Ensemble Machine Learning for Price Negotiation in E-commerce using Text and Voice-Based Chatbot"

Intellectual awareness and ensemble machine learning (EML) work. This department revolutionised online retail price negotiation using text and speech chatbots utilising artificial intelligence. This novel approach to online marketplace negotiation was developed by

 https://doi.org/10.5072/jartms.2024.04.002

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IEE

Certificate of Appreciation

This is to certify that Dr/Mr/Ms. G.D.K.Kishore of SRK Institut Technology has presented a paper entitled A Block Chain-Based Product Identification System in the "IEEE sponsored Internati conference on Science, Technology, Engineering and Managem (ICSTEM'24) held during 26th & 27th April 2024 at KIT-kalaignarkarunar Institute of Technology, Coimbatore, Tamil Nadu,India.

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Principal

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Coimbatore - 641 402, Tamil Nadu, India.

IEEE

Certificate of Appreciation

This is to certify that Dr/Mr/Ms. G. D. K. Kishore of SRK Institute of Technology has presented a paper entitled Detecting Deepfake Images: A Deep Learning Approach with Streamlit Integration in the "IEEE sponsored International conference on Science, Technology, Engineering and Management" (ICSTEM'24) held during 26th & 27th April 2024 at KIT-kalaignarkarunanidhi Institute of Technology, Coimbatore, Tamil Nadu,India.

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DEPARTMENT OF SCIENCE AND HUMANITIES

Performance-Based Appraisal System (PBAS) for Associate Professors

A.Y:2023-24

Name of the Faculty: Dr. J. Ashok

S.No.	Evaluation parameter	Max API Score	Minimum Score required	Self-Score	DFAC Score	IASC Score
1	Service in the College	50	----	50	50	50
2	Curricular Activities	400	----	300	300	30
3	Co-Curricular Activities	150	----	60	60	60
4	Research &Development	250	50	50	50	50
5.	Administrative and Extra-curricular activities	150	----	130	130	130
Total		1000	550	590	590	590

Signature of faculty	J. Ashok		
Signature(s) DFAC members	1	2	3
Signature(s) of IASC members	1	2	3 S.Sri Guru

PART - A
Service in the College

Maximum API Score:: 50

1 Personal Details:

1.	Name	Dr. J. Ashok
2.	Present Designation	Associate Professors
3.	Name of the Department	Science and Humanities (Physics)
4.	College level administrative post (if any)	
5.	Employee Identification Number	
6.	Date of Appointment to the present post	05-06-2020
7.	Date of birth	10-07-1986
8.	Address	D.NO: 3-123/1 vykuntapuram (Post) Arravathi Mandal/Guntur District Andhra Pradesh / 522020
9.	Contact details	E-mail : Jashok876@gmail.com Telephone : 9440686466 Mobile :

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2 Educational qualifications (starting from degree):

Programme	Period of study	University	Marks/CGPA	Class obtained
Ph.D	2014 - 2019	ANU	Awarded	—
M.SC	2008 - 2010	ANU [illegible] Nuzvid	70.08	1st
B.SC	2003 - 2006	ANU	53	3rd

3 Experience (starting from present position):

S.No.	Designation	Institution	From	To
1	lecturer	Siddhartha Degree	2010 - [illegible]	2014
		and PG college		
2	Assitent. Proffessor	SRKIT	2020	[illegible]
3	Associate Professor	SRKIT	01-07-2024	Till date

PART-B

PART I – Curriculum Activities

Maximum API Score: 400

1.1. Teaching weekly load allotted by the department as per time table

Semester-I		Semester-II		Total load	Average of weekly load
Name of the course	Weekly Load	Name of the course	Weekly Load		
engineering Physics	7	engineering Physics	7	14	
engineering Physics	7	engineering Physics	7	14	
engineeringPhysicslab	3	engineering Physicslab	3	6	
engineeringPhysicslab	3	engineeringPhysicslab	3	6	
	20	Total load	20	40	20

Score details for 1.1	Maximum score	Self-score	DFAC score	IASC score
	50	50	50	50

1.2. Total lecture periods taken in the previous two semesters

Semester-I			Semester-II		
Name of the course	T/P	Score	Name of the course	T/P	Score
EP and EP lab	80/70	22	EP and EP lab	78/65	24
EP and EP lab	79/70	22	EP and EP lab	75/65	23
Average score of semester-I		22	Average score of semester-II		23.5
Final score = Average score of two semesters			22.75		

T: Number of lectures taken as per concerned course attendance register

P: Number of lectures proposed in the concerned course lesson plan

Score = T/P * 20

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Score details for 1.2	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.3. Course files (All the claimed contents should be available in the course file)

S.No	Contents of course file	Weightage points per course per semester	Maximum points per semester	Semester-I		Semester-II	
				Course Name	Course Name	Course Name	Course Name
1	Syllabus page	0.5	1.5	1.5	1.5	1.5	1.5
2	Lesson plan	1	3	2	2	2	2
3	Lecture Notes	3	9	5	5	5	5
4	Question bank (Unit wise)	2	6	4	4	4	4
5	Internal examination question papers with CO mapping	1	3	2	2	2	2
6	Internal examination marks copy	0.5	1.5	1	1	1	1
7	Internal examination CO, PO assessment	2	6	3	3	3	3
8	End Semester results copy with Analysis	1	3	2	2	2	2
9	End semester examination CO, PO assessment	2	6	5	5	5	5
10	Improvements to be brought in next time course delivery	1	3	2	2	2	2
11	Assignment questions with CO mapping	1	3	3	3	3	3
12	Course End Survey evaluation	1	3	3	3	3	3
13	Scheme of evaluation for end semester examination	3	9	8	8	8	8
14	Any other (with approval of IASC)	1	3	3	3	3	3
Maximum points		20	60	49.5	44.5	44.5	44.5
Total of Semester-I &Semester-II				44.5		44.5	
Average of Semester-I &Semester-II				44.5			

Score details for	Maximum score	Self-score	DFAC score	IASC score

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1.3	60	60	60	

1.4. External examination invigilation / evaluation duties

Nature of the Duty Performed	Points per duty	Number of duties performed		Total number of duties performed	Total points
		Semester-I	Semester-II		
External examination answer sheets evaluation	5	2	2	4	20
External examination invigilation	1	4	4	8	8
Lab external examination examiner	5	1	1	2	10
Seminar- – Internal examiner	5	–	–	–	–
Mini Project– Internal examiner	5	–	–	–	–
Major Project – Internal examiner	5	–	–	–	–
Term Paper – Internal examiner	5	–	–	–	–
Any other works*	1	–	–	–	–
				Total points	38

*Any other works related to external examination with approval of IASC

Score details for 1.4	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.5. Internal examination invigilation / evaluation duties

Nature of the Duty Performed	Points per duty	Number of duties performed		Total number of duties performed	Total points
		Semester-I	Semester-II		
Internal descriptive exam answer sheets evaluation	1	4	4	8	8
Internal objective exam answer sheets evaluation	1	4	4	8	8
assignment books evaluation	1	5	5	10	10
Internal exam invigilation	1	4	4	8	8
Lab internal examiner	1	2	2	4	4

Score details for 1.5	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	

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1.6. Use of innovative teaching methodologies

Teaching methodology	Number of points per course per semester	Max. points per semester	Semester-I points	Semester-II points	Average points of two semesters
Power point presentations with own annotations and minimum 10 slides per course per semester	5	10	5	5	10
Visuals (Topic Related own video/simulation created)	5	10	5	5	10
Entire course content uploaded in MOODLE server	10	20			
				Total points	20

Note: All teaching methodology works should be recorded in the teaching diary of concerned course attendance register and proofs should be authorized by HoD.

Score details for 1.6	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.7. Remedial classes / Bridge Courses / Content beyond syllabus / Etc.

Details of item	Semester – I			Semester - II			Average of semester-I and semester-II points
	Name of the course	No. of classes taken	Semester – I points	Name of the course	No. of classes taken	Semester – II points	
Remedial classes	EP	12 (6+6)	12	EP	12 (6+6)	12	12
Bridge courses	EP	8	8				8
Career oriented course	-	-	-	-	-	-	-
Content Beyond	EP	4	4	EP	4	4	4

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Syllabus							
Additional experiments designed and conducted beyond curriculum	EP	1	1	EP	1	1	1
Job oriented Certificate Courses	-	-	-	-	-	-	-
						Total points	25

Details of item	Minimum classes required	Points per class	Maximum points
Remedial classes	5	2	10
Bridge courses	5	2	10
Career oriented course	5	2	10
Content Beyond Syllabus	5 concepts	2	10
Additional experiments designed and conducted beyond curriculum	2 experiments	5	10
Job oriented Certificate Courses	10	1	10

Score details for 1.7	Maximum score	Self-score	DFAC score	IASC score
	10	10	10	10

1.8. Mentoring with proper records

Item	Semester I	Semester II	Total No. of sessions taken	Points per session	Total score
No. of counseling sessions done	5	5	10	5	50

Note: Mentoring record should be in faculty hand writing only. Otherwise

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Score details for 1.8	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

1.9 Percentage of passes

Semester – I			Semester - II		
Name of the course	Percentage of pass	Points per course	Name of the course	Percentage of pass	Points per course
EP/EPlab	65	20	EP/EPlab	84.38	25
EP/EP lab	61	15	EP/EPlab	88.33	30
Average points of semester-I		17.5	Average points of semester-II		27.5
Total points = Average of semester I & II points = 22.5					

Note: Don't include laboratory courses here.

Percentage of pass	<55%	55-64.99%	65-74.99%	75-85%	>85%
points	10	15	20	25	30

Score details for 1.9	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

1.10. Student feedback on teaching

Semester – I			Semester - II		
Name of the course	Feedback obtained	Points per course	Name of the course	Feedback obtained	Points per course
EP/EPlab	94.38/18.87	30	EP/EPlab	96.13/19.23	30
EP/EP lab	90.57/18.11	30	EP/ EPlab	93.49/18.70	30
Average points of semester-I			Average points of semester-II		
Total points = Average of semester I & II points =					

Note: Feedback for laboratory courses also can be included here

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Feedback	<3	3 to 3.49	3.5 to 3.99	4 to 4.49	4.5 to 5
points	10	15	20	25	30

Score details for 1.10	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

1.11 Project Guidance (Mini project/major project/seminar/term paper)

Semester – I			Semester - II		
Batch – 1			Batch - 1		
Title of Project:			Title of Project:		
Register no's of students	Grade	Score	Register no's of students	Grade	Score
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
Average score of Batch-1 in semester-I (B1)		–	Average score of Batch-1 in semester-II (B2)		–
Average score of batch-1 in two semesters (S): (B1+B2)/2 =			–		
Batch – 2			Batch - 2		
Title of Project:			Title of Project:		
Register no's of students	Grade	Score (S1)	Register no's of students	Grade	Score (S2)
–	–	5	–	–	5
–	–		–	–	
–	–		–	–	
–	–		–	–	
–	–		–	–	
Overall score = S+S1+S2+P =			–		

P = 20 points if SCI/Scopus paper (journal / conference) published from the work of theproject (This publication should not be shown under Part – 3)

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Project Grade	A+	A	B	C
Points	30	25	20	15

Score details for 1.11	Maximum score	Self-score	DFAC score	IASC score
	50	–	–	–

1.12. NPTEL/MIT/COURSERA/edx/UDACITY courses completed

Title of the course	Offered by	Duration of course with dates	Percentage of marks obtained	Points obtained	Average points of one semester	Average points of two semesters
Semester = I						
–	–	–	–	–		
–	–	–	–	–		
Semester = II						
–	–	–	–	–		
–	–	–	–	–		

Note: Full course of at least 6 weeks duration only to considered.
Points for a course with exam: 20*Percentage of marks obtained
Points for a course without exam: 10

Score details for 1.12	Maximum score	Self-score	DFAC score	IASC score
	20	–	–	–

1.13. Involvement of Faculty in syllabus framing (BOS)
For BOS members:
Date(s) of BOS meeting attended: _____ Points:20
For non-BOS members:
Title of course(s) for which syllabus prepared: EP and EP lab
Points: 10 for each course

Score details for 1.13	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

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1.14 MOU's / Student Internships

Name & Regd, no. of student received internship through your guidance	Organization name	Duration of internship	Amount received by student for internship	Points
–	–	–	–	–
–	–	–	–	–
Total points		–		

Online Internship (including internshala): 5 points per student (Max.: 20 points)
Industry internship (offline): 15 points per student (Max.: 30 points)

Details of MOU	Validity of MOU (Mention date(s))	Internships received through MOU	Amount received by student (paid internship) for internship through MOU	Points
–	–	–	–	–
–	–	–	–	–
Total points		–		

Each functional MOU: 10 points
Internship received through MOU: 10 points/student (paid internship only)
Internship received through MOU: 5 points/student (non-paid internship)

Score details for 1.14	Maximum score	Self-score	DFAC score	IASC score
	30	–	–	–

Total score of part–I

Item no.	Maximum score	Self-score	DFAC score	IASC score
1.1	50	50	50	50
1.2	20	20	20	20
1.3	60	60	60	60
1.4	20	20	20	20
1.5	20	20	20	20
1.6	20	20	20	20
1.7	10	10	10	10
1.8	20	20	20	20
1.9	30	30	30	30
1.10	30	30	30	30
1.11	50			
1.12	20			
1.13	20	20	20	20
1.14	30			
Total score of part-1	400	300	300	300

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Part - II Co-Curricular Activities

Max. Score: 150

2.1Membership of professional societies

Membership offered professional society	Membership number	National / International	Points
-	-	-	-
-	-	-	-
		Total points	-

Note: International membership=10; National membership=5 points, Don't include online free memberships.

Score details for 2.1	Maximum score	Self-score	DFAC score	IASC score
	10	—	—	—

2.2 Departmental development of facilities

Development of facilities	Details of development undertaken	Semester–I	Semester – II	Total score
a) Laboratory infrastructure up gradation/New Experiment Setup Including MODROB (Utilization of budget)	-	-	-	-
b) Common student facilities – Class Room Services, Basic Amenities, Seminar/Common Halls etc.	-	-	-	-
c) Addition & use of new software	-	-	-	-
d) Any Other - authorized by IASC with the approval of Principal	-	-	-	-
			Total score	

Principal participant = 5 points per semester; others = 2.5 points per semester

Score details for 2.2	Maximum score	Self-score	DFAC score	IASC score
	10	—	—	—

2.3 Attending or organizing various activities:

Conferences / Seminars / workshops/ FDPs / skill development course / certificate courses / industry training and other similar items

Attended / Organized	Dates From	Dates To	No of Days	Title, Place, Month & year details	Points
Attended	8th May	10th May 2024	03	Essential for the Patent Drafting vijayawada	02
Attended	March 2024		02	Physics, chemistry and material science - emerging trends	02
Total points					04

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Maximum points for attending various events: 30
Maximum points for organizing various events: 30

Score details for 2.3	Maximum score	Self-score	DFAC score	IASC score
	60	30	30	30

2.4 Guest Lectures/webinar attended, organized or delivered

Attended / Organized / Delivered	Dates From	Dates To	Title, Place, Month & year details	Points
Attended	03-03-2024		The wonders Big Future : Making and Understanding	
			Nano materials, D.S Govt Degree college Ongole	02
Attended	26-03-2024		Advanced Tools for Research Methodology	
			Govt. Degree college Amaigadda 29-04-2024	02
			Total points	

Score details for 2.4	Maximum score	Self-score	DFAC score	IASC score
	20	20	20	20

2.5 Accompanied students on industrial tours

Date(s)	Places visited	No. of days	Points
23,24-10-2024	AP-Dravan Sumit at Amaravathi	2	10
Total points			10

One day trip: 5 points; More than one day trip: 10 points

Score details for 2.5	Maximum score	Self-score	DFAC score	IASC score
	10	10	10	10

2.6 Student technical events organized

Name of the event	Date(s)	Role	Points
-	-	-	-
-	-	-	-
-	-	-	-

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Role(s): Department coordinator: 10 points, Event coordinator: 5 points, Others: 2.5 points

Score details for 2.6	Maximum score	Self-score	DFAC score	IASC score
	10	–	–	–

2.7 Student innovations; Guidance

Details of student innovation	Place of participation	Date(s) of participation	Points
–	–	–	–
–	–	–	–
–	–	–	–

Score details for 2.7	Maximum score	Self-score	DFAC score	IASC score
	10			

2.8 Consultancy

Name of the company to which consultancy provided	Amount earned	Total amount	Points
–	–	–	–
–	–		
–	–		

< Rs. 25000/- 2.5 points ; 25000 to 50000 – 5 points ; 50000 to 100000 – 7.5 points ; 100001 1000000 – 10 points; more than 1000000 – 20 points

Score details for 2.8	Maximum score	Self-score	DFAC score	IASC score
	20	–	–	

Total score of part- II

Item no.	Maximum score	Self-score	DFAC score	IASC score
2.1	10			
2.2	10			
2.3	60	30	30	30
2.4	20	20	20	20
2.5	10	10	10	10
2.6	10			
2.7	10			
2.8	20			
Total score of part-II	150	60	60	60

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Part – III R &D Related Contributions

Max. Score: 250 (Min. score required: 50)

3.1 Research Publications

Book / Book chapter (Indexed by SCIE / Scopus / UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names	–	–	–
	Name of the book / book chapter	–		
	Publisher details	–		
	ISBN no.	–		
	Page no(s), Month & Year of publication	–		

Points: Book: SCIE - 50, Scopus – 40, UGC – 30
Points: Book chapter: SCIE - 40, Scopus – 30, UGC – 20

Paper publication(s) in journals (Indexed by SCIE / Scopus / UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names	T. Kalpana, J. Athok, G. Ravi, N. Ch. Ramchandra P. Geetha, V. Prakash, G. Nagaraju, A. Chitti Babu	SCIE	50
	Name of the paper	observation on the structural piezoelectric and impedance properties of cation (Ca and Sr) modified lead zirconium titrate (PbZrTi) ceramics		
	Publisher details	Springer Science Impact factor : 2.8 / J. Mater Sci : Mater electron, Volume 35, 454		
	ISSN no.			
	Page no(s), Month & Year of publication	article number 454 28-02-2024		

Score details for 3.1	Maximum score	Self-score	DFAC score	IASC score
	80	50	50	50

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3.2 Sponsored Research projects

Details of investigators	Name of the project	Sanctioning agency	Amount sanctioned / applied	Date of application	Project sanctioned / result awaited	Points
-	-	-	-	-	-	-
-	-	-	-	-	-	-
					Total points	-

Project amount	Sanctioned (points)	Result awaiting (points)	No.of investigators allowed
More than Rs.20 Lakhs	40	12	5
Rs.10 Lakhs – 20 Lakhs	30	09	4
Rs.5 Lakhs -10 Lakhs	20	06	2
< Rs.5.0 Lakhs	10	03	2
SAGTE projects	10	--	2

Score details for 3.2	Maximum score	Self-score	DFAC score	IASC score
	70	-	-	-

3.3 Conferences / symposia papers presented

Conference proceedings (Indexed by SCIE / Scopus, UGC only will be considered)

S.No.	Details of Paper		Indexed by SCIE / Scopus / UGC	Points
1	Author(s) names			
	Name of the paper			
	Conference details			
	Month & Year of conference			

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Score details for 3.3	Maximum score	Self-score	DFAC score	IASC score
	30	-	-	-

3.4 Patents

Details of inventors	Title of the patent	Patent registering agency	Month and year of patent	Published / Granted	Points
-	-	-	-	-	-
-	-	-	-	-	-
				Total points	

Score details for 3.4	Maximum score	Self-score	DFAC score	IASC score
	20	-	-	-

3.5 Incubation center established

Details of incubation center	Month & Year of establishment	Points
-	-	-

Max points: 10; Principal coordinator: 100%; others (with active participation)=80%
Active Participation as certified by Coordinator and HOD

Score details for 3.5	Maximum score	Self-score	DFAC score	IASC score
	20	-	-	-

3.6 Centre of Excellence established

Details of centre of excellence	Month & Year of establishment	Points
-	-	-

Max points: 10; Principal coordinator: 100%; others (with active participation)=80%
Active Participation as certified by Coordinator and HOD

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Score details for 3.6	Maximum score	Self-score	DFAC score	IASC score
	20			

3.7 Ph.D related activities

Ph.D awarded under your guidance 10 points

Details of scholar	Awarding university	Date & month of Ph.D award

Score details for 3.7	Maximum score	Self-score	DFAC score	IASC score
	10			

Total score of part- III

Item no.	Maximum score	Self-score	DFAC score	IASC score
3.1	80	50	50	50
3.2	70			
3.3	30			
3.4	20			
3.5	20			
3.6	20			
3.7	10			
Total score of part-III	250	50	50	50

PART-IV Administrative and Extra-curricular activities

Max. Score: 150

4.1 Departmental Administration

S.No.	Activity	SEM-I	SEM-II	Total points
1.	In-charge of time tables (10 /sem)			
2.	Attendance in-charge(10/sem)			
3.	Internal marks in-charge(10/sem)			
4.	Mini / Major Project Coordinator/Review Members			
5.	Exams In-charge (10)			
6.	Library in-charge			
7.	Lab In-charge	5	5	10
8.	Discipline(class teacher)	5	5	10
9.	Professional Society Related Coordinators (Based on the events conducted)/Department Association	5	5	10

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10.	Module / Course Coordinator	5	5	10
11.	Departmental R&D Coordinator	2.5	2.5	5
12.	Media Coordinator			
13.	Departmental News Letter Editor/Members	-	-	-
14.	ISO (Coordinator)	2.5	2.5	5
15.	TEQIP Coordinator	-	-	-
16.	Alumni Coordinator	-	-	-
17.	NBA/NAAC Participation(10 /sem)	10	10	20
18.	Grievance cell	-	-	-
19.	Anti-ragging Committee	2.5	2.5	5
20.	Vigilance	-	-	-
21	Programme Coordinator(15 /sem)*	-	-	-
22	Answer script in-charge	-	-	-
23	Induction day	2.5	2.5	5
24	Farewell day	-	2.5	2.5
25	Any Other - authorized by chairman CAS standing committee with the approval of Principal	-	-	-
			Total points	82.5

Each activity = 5 points per year; 2.5 points per sem; Coordinator =100%; others = 50%

Score details for 4.1	Maximum score	Self-score	DFAC score	IASC score
	40	40	40	40

4.2 Institutional level administration

S.No.	Activity	SEM-I	SEM-II	Total points
1.	NBA Participation(NBA Common Criteria Preparation Coordinators)	5	5	10
2.	NAAC	5	5	10
3.	Autonomous/Examination Section	5	5	10
4.	TEQIP Nodal Officers	-	-	-
5.	R&D Committee Member/Paper Incentive Member	2.5	2.5	5
6.	Maintenance of Central facilities (telephone, internet, electrical, water works, hostel, Sports etc.)	2.5	2.5	5
7.	Career Guidance Cell	-	-	-
8.	Grievance cell anti ragging	2.5	2.5	5
9.	ISO Co-ordinator	-	-	-
10.	Any other such as Hostel Warden etc.,	2.5	2.5	5
			Total points	50

Each activity/sem = 5 points; Coordinator=100%; others=50%

Score details for	Maximum	Self-score	DFAC score	IASC score

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4.2	score			
	50	50	50	50

4.3 Institutional Events Organization members, Sports Participants

S.No.	Activity	SEM-I	SEM-II	Total points
1.	Annual day		5	5
2.	Cultural activities	5	5	10
3.	Sports participation	2.5	2.5	5
4.	Any Other as approved by IASC and by Principal approved	2.5	2.5	5
			Total points	25

Each activity = 5 Points/sem;

Score details for 4.3	Maximum score	Self-score	DFAC score	IASC score
	30	30	30	30

4.4 NSS / NCC / Other Service activities

S.No.	Activity	SEM-I	SEM-II	Total points
1.	NCC / NSS activities	2.5	2.5	5
2.	NSS/ NCC Coordinator(10)	-	-	-
3.	Women grievance cell activities			
4.	Health camps	2.5	2.5	5
5.	Blood camps	-	-	-
6.	Service to poor	-	-	-
7.	Service to Disabled	-	-	-
8.	Charity camps etc.	-	-	-
9.	Any Other as approved by IASC and by Principal approved	-	-	-
			Total points	10

Each activity = 5 points/sem

Score details for 4.4	Maximum score	Self-score	DFAC score	IASC score
	10	10	10	10

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4.5 Training & other Misc. activities

S.No.	Activity	SEM-I	SEM-II	Points
1.	Training and placements- Departmental T&P Coordinator=20 points; others = 10 points	–	–	–
2.	Institute News letter Editorial board: 10 points; ArticleContributors:5 points(From Dept);	–	–	–
3.	Material contribution to news letter/Annual Day Report/House Journal from Department ArticleContributors:5 points(From Dept)	–	–	–
4.	Any Other as approved by IASC and by Principal approved	–	–	–
			Total points	–

Score details for 4.5	Maximum score	Self-score	DFAC score	IASC score
	20	–	–	–

Total score of part- IV

Item no.	Maximum score	Self-score	DFAC score	IASC score
4.1	40	40	40	40
4.2	50	50	50	50
4.3	30	30	30	30
4.4	10	10	10	10
4.5	20	–		
Total score of part-IV	150	130	130	130

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Academic Year:2023-24 **Semester: II** **w.e.f: 19-02-2024**

Name of the Faculty: Dr. J. Ashok **Subject : Engineering Physics**

Time	9:00-9:50	9:50-10:40	10:40-11:30	10Min	11:40-12:25	12:25-01:15	01:15-02:00	02:00-02:45	02:45-03:30	03:30-04:15
Period	1	2	3		4	5		6	7	8
MON		CSM-B		BREAK	CSE-B		LUNCH		CSE-A	
TUE			CSM-B		CSM-B			CSE-A		
WED	CSE-B							-----CSE-B-----		
THU					CSE-A				CSE-B	
FRI	CSE-A		CSM-B			CSE-B				
SAT	------CSE-A----					CSM-B				

Faculty Sign 19/2/24 **HoD / Date** 19/2/24

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Academic Year:2023-24 **Semester:II** **w.e.f: 19-02-2024**

Name of the Faculty:Ms.B.Naga Mani **Subject : Engineering Physics**

Time	9:00-9:50	9:50-10:40	10:40-11:30	10Min	11:40-12:25	12:25-01:15	01:15-02:00	02:00-02:45	02:45-03:30	03:30-04:15
Period	1	2	3		4	5		6	7	8
MON				BREAK	CSD	CSM-A	LUNCH	------CSM-B-----		
TUE					CSD			CSM-A		
WED					CSD	CSM-A				CSM-A
THU	------CSD-----							------CSM-A----		
FRI								------CSD----		
SAT									CSM-A	

Faculty Sign 19/2/24 **HoD / Date** 19/2/24

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Academic Year:2022-23 Semester:I w.e.f: 19-09-2023

	Name of the Faculty: Mr.K.Basava Raju								Subject : Mathematics- I	
Time	9:00-9:50	9:50-10:40	10:40-11:30	10Min	11:40-12:25	12:25-01:15	01:15-02:00	02:00-02:45	02:45-03:30	03:30-04:15
Period	1	2	3		4	5		6	7	8
MON					VLSI					
TUE					VLSI					VLSI
WED	VLSI			BREAK			LUNCH			
THU										VLSI
FRI						VLSI				
SAT								EVT(S)	---VLSI---	

Faculty Sign 14/9/23 HoD Date 19/9/23

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Academic Year:2023-24 Semester: I w.e.f: 19-09-2023

	Name of the Faculty: Dr.J.Ashok								Subject : Engineering Physics	
Time	9:00-9:50	9:50-10:40	10:40-11:30	10Min	11:40-12:25	12:25-01:15	01:15-02:00	02:00-02:45	02:45-03:30	03:30-04:15
Period	1	2	3		4	5		6	7	8
MON	ECE-B				CSD(L)			------ ECE-B------		
TUE								ECE-A		ECE-B
WED		ECE-B		BREAK	-----ECE-A---		LUNCH			
THU	ECE-A				ECE-B			------ ECE-B------		
FRI		ECE-A			ECE-A	ECE-B				
SAT					------ ECE-B-----				ECE-A	

Faculty Sign 19/9/23 HoD Date 19/9/23

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Department of Science and Humanities

Academic year: 2023-24 Year / Semester: I/I Section: ECE –A

S No	SUBJECT	FACULTY NAME	FEED BACK (%)	FEED BACK MARKS(20)
1.	Communicative English	Mr.Yellamanda Vusa	89.45	17.89
2.	Engineering Physics	Dr.J.Ashok	94.38	18.87
3.	Linear Algebra And Calculus	Mr.B.V.Rama Krishna Rao	92.62	18.52
4.	Basic Electrical And Electronics Engineering	Ms.K.Noha	96.38	19.27
5.	Engineering Graphics	Mr.M.Hari Krishna/D.Rognath	95.31	19.06
6.	Health And Wellness, Yoga And Sports	Mr. CH.Sarath / Mr. Yellamanda Vusa	80.24	16.04

Academic year: 2023-24 Year / Semester: I/I Section: ECE –B

S No	SUBJECT	FACULTY NAME	FEED BACK (%)	FEED BACK MARKS(20)
1.	Communicative English	Ms.B.Ranga naga valli	90.48	18.09
2.	Engineering Physics	Dr.J.Ashok	90.57	18.11
3.	Linear Algebra And Calculus	Mr.B.V.Rama Krishna Rao	90.58	18.11
4.	Basic Electrical And Electronics Engineering	Ms.K.Noha	93.12	18.62
5.	Engineering Graphics	R.Kiran Kumar/M.Hari Krishna	92.48	18.49
6.	Health And Wellness, Yoga And Sports	Mr. CH.Sarath / Mr. Yellamanda Vusa	91.12	18.22

HOD / Dean

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Academic year: 2023-24 Year / Semester: I/II Section: CSE - AI&ML(A)

S No	SUBJECT	FACULTY NAME	FEED BACK (%)	FEED BACK MARKS(20)	SIGNATURE OF THE FACULTY
1.	Differential Equations and Vector Calculus	Ms.S.Suman	97.61	19.52	
2.	Engineering Physics	Ms. B. Nagamani	95.37	19.07	
3.	Basic Electrical and Electronics Engineering	Ms.S.Sandhya	80.29	16.06	
4.	Engineering Graphics	Mr.M.Hari Krishna/ Mr.P.N. Tarun Venkatesh	93.07	18.61	
5.	Data Structures	Mr.R.P.Jyoth Singh	94.17	18.83	
6.	Soft Skills	Ms.B.Ranga Nagavalli	86.10	17.22	

HOD / Date 26/3/24

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Academic year: 2023-24 Year / Semester: I/II Section: CSE-AI&ML(B)

S No	SUBJECT	FACULTY NAME	FEED BACK (%)	FEED BACK MARKS(20)	SIGNATURE OF THE FACULTY
1.	Differential Equations and Vector Calculus	Ms.S.Suman	98.75	19.75	
2.	Engineering Physics	Dr. J. Ashok	89.8	17.96	
3.	Basic Electrical and Electronics Engineering	Ms.S.Sandhya	81.8	16.36	
4.	Engineering Graphics	Mr.M.Hari Krishna/ Ms.Y.Durga Bhavani	95.4	19.08	
5.	Data Structures	Mr.R.P.Jyoth Singh	94.2	18.84	
6.	Soft Skills	Ms.V. Navatha	97.45	19.49	

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Academic year: 2023-24 Year / Semester: I/II Section: CSE -A

S No	SUBJECT	FACULTY NAME	FEED BACK (%)	FEED BACK MARKS(20)	SIGNATURE OF THE FACULTY
1.	Differential Equations and Vector Calculus	Dr.K.Krishna Rao	97.48	19.50	
2.	Engineering Physics	Dr.J.Ashok	96.13	19.23	
3.	Basic Electrical and Electronics Engineering	Dr.D.S.P.Kishore	82.74	16.55	
4.	Engineering Graphics	Mr.R.Kiran Kumar/ Ms. P.Bhagya lakshmi	95.74	19.15	
5.	Data Structures	Ms.G.M.Padmaja	94.83	18.97	
6.	Soft Skills	Ms. V. Navatha	85.88	17.18	

HOD / Date 26/3/24

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Academic year: 2023-24 Year / Semester: I/II Section: CSE –B

S No	SUBJECT	FACULTY NAME	FEED BACK (%)	FEED BACK MARKS(20)	SIGNATURE OF THE FACULTY
1.	Differential Equations and Vector Calculus	Mr.B.V.Rama Krishna Rao	99.28	19.86	
2.	Engineering Physics	Dr.J.Ashok	93.49	18.70	
3.	Basic Electrical and Electronics Engineering	Dr.D.S.P.Kishore	78.51	15.70	
4.	Engineering Graphics	Mr.R.Kiran Kumar / Mr.U.Tanoj	97.32	19.46	
5.	Data Structures	Ms.G.M.Padmaja	96.89	19.38	
6.	Soft Skills	Ms. B.Pavani	99.49	19.90	

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Observations on the structural, piezoelectric, and impedance properties of cation-(La and Sn) modified lead zirconium titanate (PLZST) ceramics

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ABSTRACT

The structural ambiguity was resolved quantitatively with dual-phase models of *Cc* + *P4mm*. Multiple-phase transition behaviors including Antiferroelectric (AFE) to Ferroelectric transition, transition at depolarization temperature, and AFE to paraelectric state transition were observed among PLZST samples and investigated in detail. The piezoelectric and impedance features of a modified PZT ceramic that has different mole ratios of La and Sn co-substitution are shown here. The principle of Archimedes shows that the synthesized specimens have sufficient density for withstanding high temperatures and higher fields while explaining them. We concentrated on the impedance and piezoelectric coefficients d_{33}, g_{33}, and figure of merit (FOM) of the ideal $PbLaZrSnTiO_3$ (PLZST) composition (50/30/20) in this study. The PLZSTs consist of two phases (*Cc* + *P4mm*), which combine to generate a single phase with a high Sn content and a low La content. These structural correlations coexist with the dual evaluation of impedance and piezoelectric characteristics in order to produce optimum composition. In order to evaluate the impedance features, the property of activation energy for the grains also supports the PLZST (50/30/20) having superior properties among PLZSTs. The optimum composition will meet the current business's commercial needs through multiple windows.

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1 Introduction

Multifunctional materials or ceramics have attracted a lot attention in the modern era due to their numerous window operations [1–3]. PZT and its analogs are widely used in the communication, medical, and electrical industries due to their low cost and outstanding accuracy. PZT's outstanding characteristics have applications in energy storage devices as well as positive and negative electro-caloric properties [4, 5]. Because of their remarkable properties, multiple organizations [6–9] have looked into the PZT and PLZT systems simultaneously; as a consequence, these materials are opening new avenues to address current generation concerns [10–12]. They showed, for instance that these materials are outstanding for electro-caloric effect cooling because of their significant dipolar entropy shift during the transition from the antiferroelectric to the ferroelectric phase. These ceramic specimens involve crystallite grains of different sizes that are linked together in a variety of arbitrarily ways [9, 13]. These zones of grain amalgamation are referred to as boundaries of grain, and they are greatly impacted by external factors such as heating and cooling, an external electric field, and so on. The interfacial behavior of grain boundaries enables electroceramics [8, 14]. In device application, all ceramic specimens are connected to the system through electrodes. These electrodes can function as a grain-to-grain barrier system with programmable effect settings [15]. Impedance spectroscopy is an invaluable tool to determine the entire profile picture of the grain and grain boundary profile. The results of impedance spectroscopy not only provide values for grain contribution and grain boundary, but also provide a comparable circuit model for modeling [16, 17]. Even if the model has been taken into account, choosing one that works might be hard. A particular model was developed for these PLZST specimens to draw the proper predicted outcomes and provide information for the design of advanced devices. The fault makeup of solid-state specimens plays an important role in these new potential applications. Understanding how desired characteristics interact with imperfections and vacancies on the site was important [18, 19]. The co-substitution of La and Sn in varying ratios affects interior imperfections such as voids at A- and B-sites. Site vacancies and electrons at space charges affect the ferroelectric fatigue or impedance/conductive properties of materials [20–23]. The use of AC impedance analysis for identifying the cause of failure at grain–grain boundaries is an adaptable technique. It must also build its relaxation method by providing distinctive resistance and capacitance values to the grain and grain border effects.

The excellent properties of PZT have drawn a lot of attention in the area of polar-based materials devices. The pure form of PZT has a higher d_{33} value when compared to all polar materials [24]. The increased value of d_{33} in PZT produced by altering the phase boundary additionally indicates an important increase in device effectiveness. Piezo-coefficients have been produced in this instance by averaging many internal ionic crystal polarizations. These piezo-coefficient values are a consequence of stationary charges building up at both ends caused by crystal structural deformation. This domain mobility has discovered applications in power-controlling electric devices [25]. These devices have controls, and their efficiency/performance is evaluated using a figure of merit (FOM).

2 Experimental details

The PZT-based polycrystalline ceramics $(Pb_{0.94}La_{0.06})(Zr_xSn_{0.30}Ti_{0.70-x})O_3$($x$ = 0.54, 0.52, 0.50, and 0.48) have been synthesized using a conventional solid-state reaction. The high-grade raw metal oxide chemical powders of PbO, La_2O_3, TiO_2, ZrO_2, and SnO_2 (99% AR Grade, Chemicals) were used as initial precursors for synthesis. These raw materials were weighed according to their mole ratio and mixed properly. The mixed powders were further mixed properly using ball milling over the time 10 h with 300 rpm for all specimens and then calcined at 840 °C for 3 h. After mixing uniformly, these powders were pressed into circular disks with a uniform thickness of 10 mm diameters by adding 8 wt% of PVA (*Poly vinyl Alcohol*) as binder solution prepared in IPA solution. These circular disks were sintered in alumina crucibles in the presence of PZT powder to play down the lead volatilization and then placed in a box furnace. These circular disks were sintered at 1250 °C for 3 h with a uniaxial rate of heating of 5 °C/min. These ceramics were polished on different emery sheets for a fine thickness of 0.2 mm with a uniform surface. The structural phase purity of polycrystalline ceramics was confirmed by using X-ray diffractometer (XRD, 7000S/L, Shimadzu Corp, Japan) using Cu Kα radiation. The temperature-dependent dielectric and impedance measurements on

the disk with electrodes were performed by using a computer-controlled LCR meter (Tonghui TH2828S, China) within the temperature range from − 5 to 600 °C with a uniform heating rate of 2 °C/min. The specimens were poled electrically at room temperature in a silicon oil bath (DOW CORNING 704) by applying DC electric fields of 0–60 kV/cm for constant time for each equal interval of time. These piezocoefficients were estimated with the help of Piezometer System PM300 (Piezotest Ltd.) operated at a frequency of 100 Hz.

3 Results and discussion

An efficient method for determining the structural distortion of polycrystalline materials is the X-ray diffraction (XRD) technique. Figure 1 shows the XRD patterns of Zr- and Ti-substituted PZT (PLZST) ceramics. Every ceramic was stabilized in a pure perovskite structure, devoid of any secondary phases coexisting with it. Super lattice reflections of monoclinic Cc have been described in literature paired with the room-temperature structure, specifically for PZT [26]. As Zr content increases at the Ti site, the peak combines and appears as a single peak. The existence of dual phase over the substitution of Zr- and Ti-substituted PZT, analyzed phase contribution quantitatively employing a methodical structural refinement procedure. Throughout the series, Rietveld refinement was

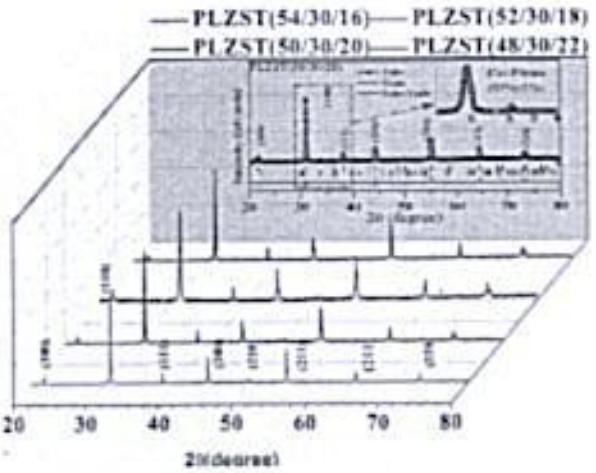

Fig. 1 Powder X-ray diffraction patterns of PLZST (54/30/16), PLZST (52/30/18), and PLZST (50/30/20) and PLZST (48/30/22). Inset shows the Rietveld refined pattern of PLZST(50/30/20), which existing in the *Cc* + *P4mm* duel phase model with reducing tetragonal reflections

performed using full proof software [27]. We choose various dual structural phase models to erform refinement by validating the structural coexistence. In order to determine the coexistence of the structural phase model for PLZST (50/30/20), the clear indication is yielded that fit was extremely good fit with *Cc* + *P4mm*. The quality and goodness of fit for PLZST (50/30/20) are shown in the inset of Fig. 1.The inset shows the evidence of the significant intense Brag reflection of the $(110)_{pc}$ peak's best fit. The refine parameters, atomic positions, and lattice constants are provided in Table 1.

The temperature-dependent dielectric permittivity (ε) and tangent loss (tan δ) of the unpoled samples under a selected frequency of 100 kHz are presented in Fig. 2.The dielectric anomaly indicated by T_m, which is the most significant dielectric constant value and is related to the phase transition from the antiferroelectric to the paraelectric region, was seen in each specimen. For each specimen, the phase transition sequence exhibits a comparable pattern. At the lower temperature side (*before depolarization* T_d), the permittivity decreases with compositional variation and all exhibit broad peaks, suggesting the features of a diffuse phase transition [28, 29]. The dielectric permittivity value is very high for PLZST (50/30/20) compared to other ceramics PLZST (54/30/16), PLZST (52/30/18), and PLZST (48/30/22). A significant improvement in dielectric permittivity indicates that as the Ti^{4+} concentration increases and the Zr^{4+} content decreases simultaneously, the antiferroelectricity gets lower and the ferroelectricity gets higher. At the same time, the temperature corresponding to maximum ε (named as T_m) shifts slightly towards a lower temperature region upon decreasing the ratio of Zr/Ti. All these samples have shown the typical ferroelectric relaxor ferroelectric behavior due to the diffuse phase transition [30].

Figure 3 shows a schematic representation of domains and straightforward distinguished status of grain boundaries, as well as unpoled and poling situations. In terms of quantities, the orientation of domains across a particular axis represents the d_{33} and g_{33} values. Because of the orientation of the [001] plane [31], the maximum values of d_{33} and g_{33} were achieved. These PLZST polycrystalline ceramics' structural phase purity and multi-phase coexistence could have been seen elsewhere [32]. The presence of a dual structural phase [9] within the PLZST (50/30/20) with the co-substitution of La and Sn leads to the superior desirable features of these specimens. After poling the samples at high fields

Table 1 Structural refined parameters of monoclinic Cc and tetragonal P4mm space

Cc	PLZST(50/30/20)		
Positions	*x*	*y*	*z*
Pb/La	0.0000	0.2517	0.0000
Zr/Ti/Sn	0.0000	0.2517	0.0000
O_1	0.3013	0.0296	− 0.0614
O_2	0.1982	0.2521	0.5107
$a = 9.5291$ Å, $b = 5.4956$ Å, $c = 5.5016$ Å, $\alpha = \gamma = 90°$, $\beta = 125.257°$			
P4mm	PLZST(50/30/20)		
Positions	*x*	*y*	*z*
Pb/La	0.0010	0.49381	0.2500
Zr/Ti/Sn	0.0000	0.2517	0.0000
O_1	0.2130	0.2870	0.0260
O_2	− 0.0572	0.0020	0.2510
O_3	0.2130	0.2870	0.0267
$a = 3.8844$ Å, $b = 3.8844$ Å, $c = 3.9449$ Å, $\alpha = \beta = \gamma = 90°$			
$\chi^2 = 2.51$			

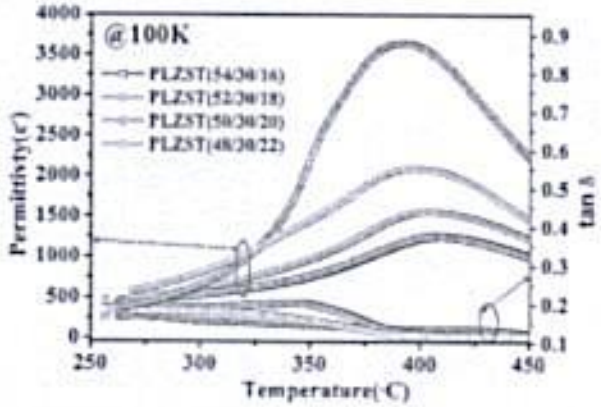

Fig. 2 Temperature dependent of dielectric constant (ε ε') and loss $\tan(\delta)$ of these ceramics at 100 kHz for PLZST (54/30/16), PLZST (52/30/18), PLZST (50/30/20), and PLZST(48/30/22) ceramics, respectively

at room temperature, the piezo-coefficient (d_{33}) and voltage coefficient (g_{33}) were calculated for these PLZST specimens, as shown in Fig. 4a, b. To figure out the systematic domain orientation profile, we estimate the corresponding values of d_{33} and g_{33} of PLZST (50/30/20) after providing the specimen to fields that vary from (0.5–5) kV/cm. The PLZST (50/30/20) d_{33} and g_{33} values develop gradually and achieve saturation at maximum fields. The possibility of electrical, ionic, and orientation polarization in the presence of an electric field is mainly accountable for the enhancement of d_{33} and g_{33} [33]. The FOM is mainly helpful to figure out if materials possess commercial utility dependent on the required features. The parameter FOM will decide the performance of the PLZST in this instance, and calculating the value of FOM employing dielectric loss indicates the PLZST (50/30/20).With the help of FOM, we can estimate the device performance, where piezo material can exist.

The electrical response (*i.e.*, transport characteristics) of polycrystalline samples at different temperatures has been examined with complex impedance spectroscopy [34, 35]. This spectroscopy offers the direction and correlation of the real system and paired electrical circuits with discrete electrical components. Figure 5 displays the Nyquist graphs of PLZST (54/30/16), PLZST (52/30/18), PLZST (50/30/20), and PLZST (48/30/22) at 600 °C. At lower temperatures, the features of a single semicircle apply to the essential conduction mechanism. At the same temperature, the impedance spectrum intercepts alterations towards the origin, indicating that the resistivity property of the material reduces with substitution of La and Sn in PZT. These specimen impedances with compositional variation were reproduced at the same temperature employing a suitable/equivalent circuit built up of bulk resistance

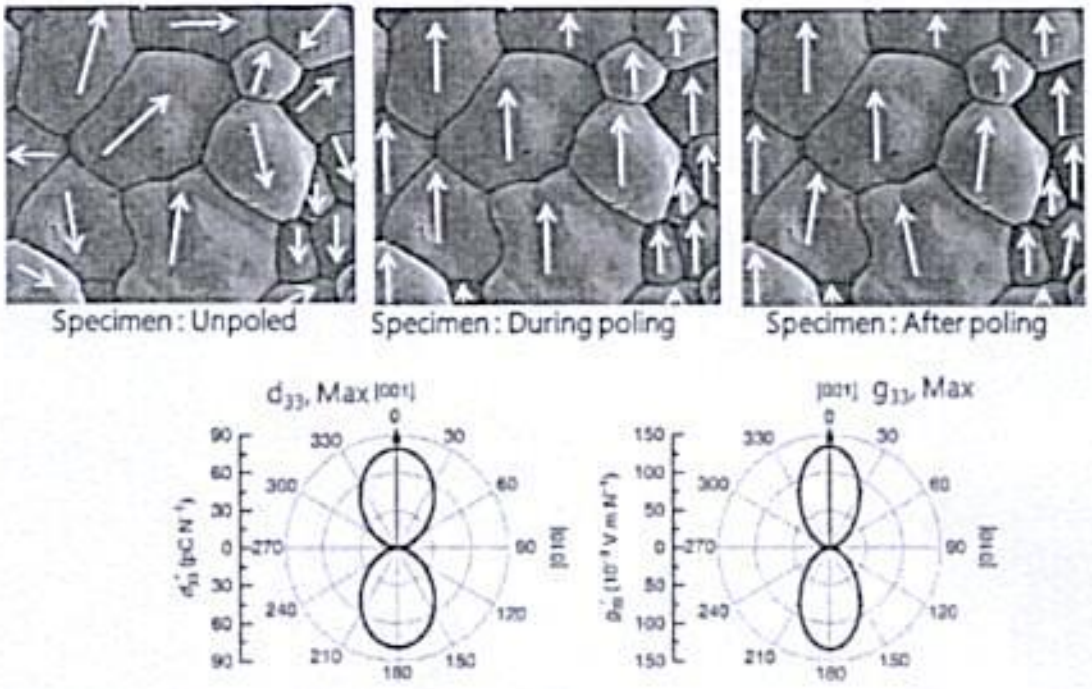

Fig. 3 Schematic representation of domain orientation under unpoled and poled conditions and the axial rotation of domain while, measuring the d_{33} and g_{33} at room temperature

R and CPE (constant phase element) linked in parallel. After fitting, the following equation provides accurate R and CEP data [35].

$$Z = \frac{1}{[T(jw)^{\beta}]}, \tag{1}$$

where CPE is represented in capacitance units and is the angular frequency ($\omega = 2\pi f$). The equations for the real (Z') and imaginary (Z'') impedance components of the similar circuit are provided in the potential reports [35]. The difference in relaxation time is demonstrated by the substitution shifts of La and Sn symmetry (semicircle) size with frequency decreases in quantity. These different time constant values represent non-delay relaxation types. Apart for the PLZST (50/30/20), the peak oscillates from higher to lower frequency, which is the opposite of ideal nature's tendency. In a consequence, the effect of La and Sn substitution on the electrical properties of PLZST is evident across the spectra.

In general, it can be done to create oxygen vacancies while sintering oxide-based perovskites. The normal Ti^{4+} contribution decreases as well oxygen vacancies. The ferroelectric fatigue tolerance is explained by the control of oxygen vacancies in the presence of La^{+} ion replacement [34]. Cation substitution impacts behavior and is highly tied to structural defects. The structural shortcomings caused by cation substitution are going to be significant interest. These can be understood through impedance spectroscopy. The plot of the imaginary part of (Z'/Z'') compared to frequency of PLZST(54/30/16), PLZST(52/30/18), PLZST(50/30/20), and PLZST(48/30/22) can be seen in Fig. 6. The aforementioned graphs represent the Debay peaks with the greatest frequency characteristic shifts in the temperature range and just represent the grain contribution. With increasing temperatures, the maximum frequency values of PLZST (54/30/16), PLZST (52/30/18), PLZST (50/30/20), and PLZST (48/30/22) altered towards higher frequencies, reflecting decreases in relaxation time ($\tau = 1/2\pi f_{max}$).

$$\tau = \tau_0 \exp\left(\frac{E_g}{k_B T}\right). \tag{2}$$

It is commonly understood that is the relaxation time, ER is the dielectric relaxation activation energy, K_B is the Boltzmann constant, and T is the absolute temperature. The values of E_g in both specimens show

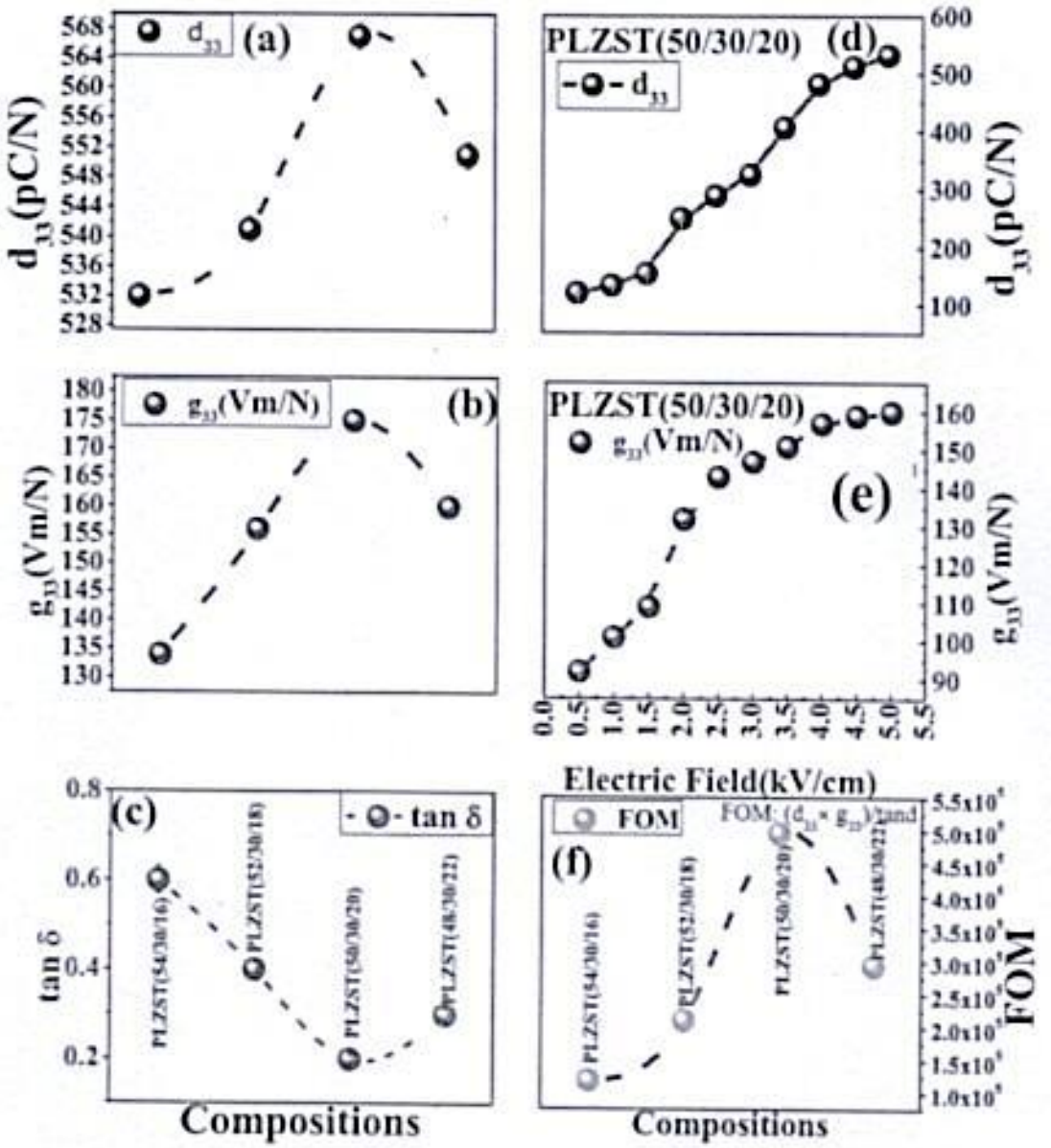

Fig. 4 **a** Room-temperature measurement of Piezo-coefficient (d_{33}) of PLZST(54/30/16), PLZST(52/30/18), PLZST(50/30/20), and PLZST(48/30/22). **b** Piezoelectric voltage coefficient (g_{33}) and dielectric loss (tan δ) @ (**c**), Figure of merit @ (**f**) of PLZST(54/30/16), PLZST(52/30/18), PLZST(50/30/20), and PLZST(48/30/22). The Piezo-coefficient (d_{33}) @ (**d**) and Piezo-electric voltage coefficient (g_{33}) @ (**e**) at different fields for the PLZST (50/30/20)

similar dielectric relaxation. The E_g values here suggest that the existence of oxygen vacancies plays an important role in dielectric relaxation. The activation energy E_g for the smiles is slightly greater than the contribution of the grain boundary. Table 2 shows the values of complete set bulk resistance and capacitance as they sweep the temperature range from 400 to 600 °C. Figure 7 shows the inverse of frequency (relaxation time) versus function of temperature in order to figure out the grain contribution for these specimens. The E_g value for the PLZST (50/30/20) shows that the structure easily supports the grain or domain orientation for obtaining better d_{33} and g_{33} while achieving lower dielectric loss.

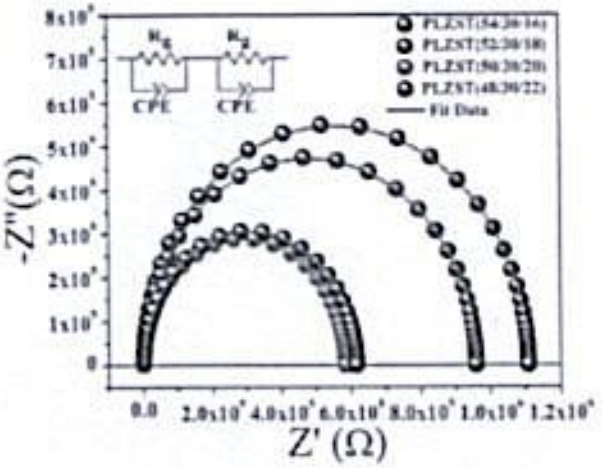

Fig. 5 Experimental and simulated semicircles plot at 600 °C for the PLZST(54/30/16), PLZST(52/30/18), PLZST(50/30/20), and PLZST(48/30/22)

4 Conclusions

A solid-state approach was employed to successfully produce high-density pure phase polycrystalline materials. The structural phase purity of these substances was quantified via structural refinement. From structural phase purity, it was confirmed that PLZST ceramics were successfully synthesized via a solid-state route. The dual phase presence of P4mm and Cc over the co-substitution of $Zr^{4+}$and Ti^{4+} in PLZST (50/30/20) ceramics confirms the contribution of both polarization directions. The piezoelectric and impedance studies suggested that the PLZST (50/30/20) is the most effective composition. The estimated activation energy of these specimens also supports the ideal composition. This perfect chemical is a viable choice for meeting the commercial needs of industries.

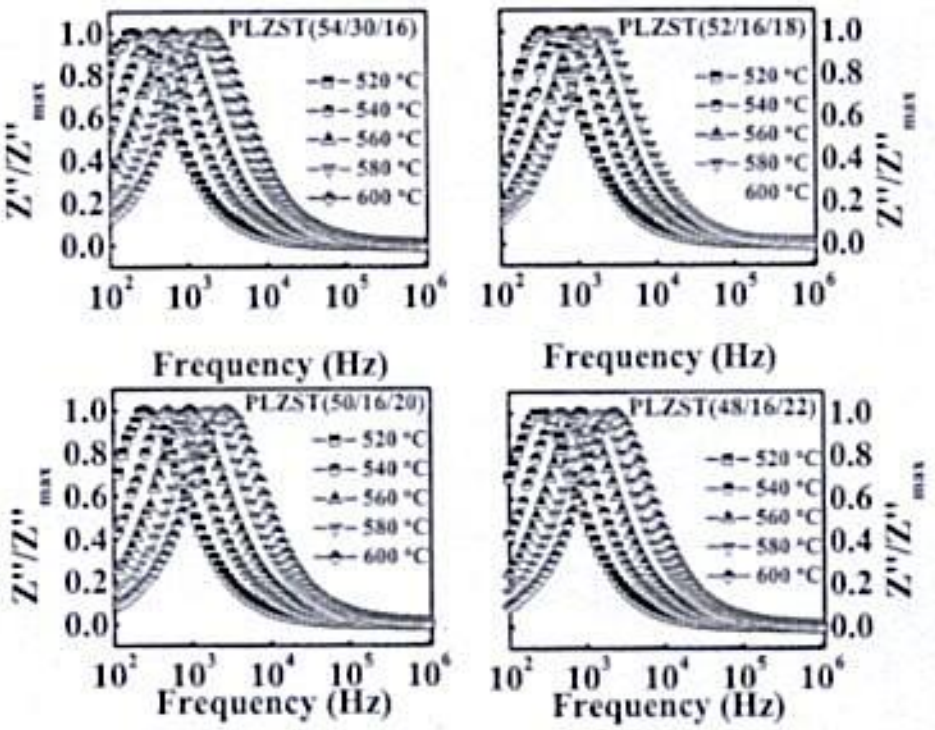

Fig. 6 Frequency dependence of imaginary part of impedance (Z''/Z'') of PLZST(54/30/16), PLZST(52/30/18), PLZST(50/30/20), and PLZST(48/30/22)

Table 2 Bulk resistance R and CPE (constant phase element) of PLZST(54/30/16), PLZST(52/30/18), PLZST(50/30/20), and PLZST(48/30/22)

Temp (°C)	Rg(Ω) PLZST(54/30/16)	CPE(nF)	Rg(Ω) PLZST(52/30/18)	CPE(nF)	Rg(Ω) PLZST(50/30/20)	CPE(nF)	Rg(Ω) PLZST(48/30/22)	CPE(nF)
400	4.38×10^{8}	0.14	7.128×10^{8}	0.1685	3.714×10^{8}	0.2082	3.438×10^{8}	0.2275
420	1.717×10^{8}	0.13	2.374×10^{8}	0.1535	1.41×10^{8}	0.188	1.263×10^{8}	0.2.064
440	1.01×10^{8}	0.124	9.986×10^{7}	0.141	6.159×10^{7}	0.1722	5.53×10^{7}	0.1894
460	5.0049×10^{7}	0.1142	5.142×10^{7}	0.131	3.077×10^{7}	0.1621	2.7×10^{7}	0.1758
480	2.699×10^{7}	0.1078	2.5789×10^{7}	0.1227	1.529×10^{7}	0.1504	1.407×10^{7}	0.164
500	1.453×10^{7}	0.1045	1.39×10^{7}	0.1147	7.682×10^{6}	0.144	7.503×10^{6}	0.1522
520	8.174×10^{6}	0.094	7.588×10^{6}	0.1092	4.046×10^{6}	0.1505	4.29×10^{6}	0.1447
540	4.678×10^{6}	0.09328	4.319×10^{6}	0.1042	2.25×10^{6}	0.154	2.53×10^{6}	0.1373
560	2.73×10^{6}	0.08964	2.549×10^{6}	0.09735	1.3957×10^{6}	0.1407	1.519×10^{6}	0.1296
580	1.6298×10^{6}	0.08555	1.54×10^{6}	0.09307	894,000	0.1155	940,000	0.1243
600	1.107×10^{6}	0.08055	956,800	0.08899	584,800	0.1051	616,000	0.1171

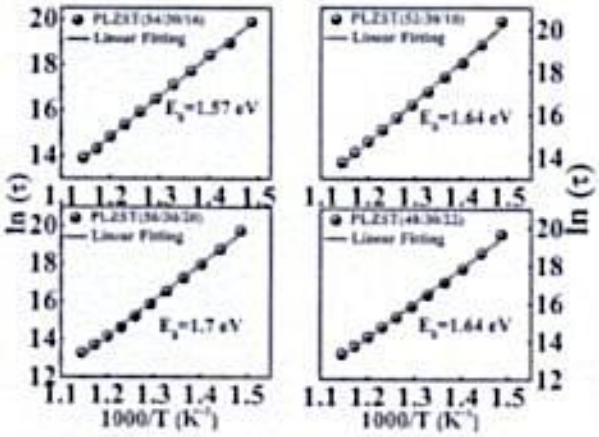

Fig. 7 Inverse frequency (relaxation time) versus temperature of PLZST(54/30/16), PLZST(52/30/18), PLZST(50/30/20), and PLZST(48/30/22)

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Author contributions

KT: Investigation and methodology, JA: Data curation and writing draft, RG: Methodology and data curation, NCRB, PS: Methodology and data validation, PG: Data validation and review and editing the manuscript, GN, ACB, Data validation, review, and editing the manuscript. VP: Conceptualization, supervision, and review and writing the manuscript.

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Data availability

The authors declare that all the data generated or analyzed during this study are included in this manuscript.

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

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Non Teaching Staff Performance Appraisal Form

(To be filled by the employee)

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(To be filled by Head of the Department / Office)

S.No	Item	Excellent A	Good B	Average C	Poor D
1	**Technical Adequacy:**		✓		
	a) Industry		✓		
	b) Initiative		✓		
	c) Neatness	✓			
	d) Accuracy				
	e) Punctuality in work		✓		
	f) Systematic working		✓		
	g) Promptness	✓			
	h) Regularity in Attendance	✓			
	i) Relations with superiors	✓			
	j) Relations with colleagues	✓			
	k) Relations with students	✓			
	l) Relations with members of public	✓			
	m) Dependability		✓		
2	**General Impression:**	✓			
	a) Leadership qualities				
	b) Level of Knowledge (related to the Department / office)		✓		
	c) Special, Complementary aptitude qualities.		✓		
	d) Skill Development			✓	
	e) Ability to work in team			✓	
	f) Leave Record			✓	
	g) Able to provide the data immediately		✓		

Signature: _____

(Head of the Department / AO)

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