# WELCOME TO NAAC PEER TEAM CYCLE-III

DEPARTMENT OF PHYSICS S.V.C.R. GOVT. DEGREE COLLEGE PALAMANER

#### **INTRODUCTION**

• Physics Department was Established in the Year 1997-98

• Core Subject of B.Sc. (M.P.C. &M.P.Cs.) Programme

• Electronics was Introduced in the Year 2020-21 of B.Sc. (M.E.Cs.)

#### **DEPARTMENT OF PHYSICS AND ELECTRONICS**

> Year of Establishment :1997-98

**> Groups** :B.SC.,(M.P.C., M.P.Cs., &M.E.Cs.)

➤ Number of Sanctioned Posts :03

➤ Number of Teaching Staff Working : 03

> Student Strength(2021-2022) :168

> Results in the Year (2021-22) :98%

#### DEPARTMENT POLICY

# PROMOTE USAGE OF RENEWABLE ENERGY

# BAN PLASTIC

# BAN FLEXIES

# **Vision**

To develop passion towards understanding of basic principles of Physics of today's technology and use it for self sustenance.

#### **MISSION**

- To develop analytical skills, logical thinking and problem solving abilities among the students.
- To empower the students with technology to blend themselves into various professions with a sense of social responsibility.
- To motivate the students towards higher education and research.

#### FACULTY DETAILS

S. No.	Name of the staff Member	Designation	Qualification	Experience (in years)
1	G.M .Shanmugam	Lecturer in Physics	M.Sc., M.Ed., M.Phil.	32+
2	M.Surya Sekhar Reddy	Lecturer in Physics	M.Sc., M.Ed., M.Phil., (Ph.D.)	27+
3	K. Venkatadri	Lecturer in Physics	M.Sc., B.Ed., (Ph.D.)	12+

#### PROFILE OF THE FACULTY

Additional

level committees

Profession Achievements

level inspire

award (5)

No	the staff Member	al honours	Achievements	responsibilities
1	G.M .Shanmug am	1.Academi c advisor for CCE Academic Audit	<ul> <li>a) MRP: Solar thermal power generation(Sep 2014)</li> <li>b) One O C, Two RC</li> <li>c) Adjudicator in district level inspire award (5)</li> <li>d) Participated in 5 national seminar</li> </ul>	<ol> <li>Vice principal</li> <li>A.V.E         committee         convener</li> <li>FRS         coordinator</li> </ol>
2	M.Surya Sekhar Reddy	1.Acting as an advisor for INSPIRE organizing committee	<ul> <li>a) Attended More than 50 seminars/work shops</li> <li>b) Conducted 2 National and 3 international seminars as a Convenor</li> <li>For more details <a href="https://bit.ly/3FIUmwL">https://bit.ly/3FIUmwL</a></li> </ul>	1.Exams coordinator 2.UGC coordinator
3	K. Venkatadri	Adjudicator in district	<ul><li>a) Attended more than 20 seminars</li><li>b) Attended pdfs for refreshing</li></ul>	1.Acting as member in different college

professional knowledge

- PO1: To produce graduates who excel in the competencies and values required for leadership to serve a rapidly evolving global community
- PO2: To motivate the students to pursue PG courses in reputed institutes.
- PO3: To learn the fundamental principles and scientific theorems related to basic sciences and their relevance in daily life
- PO4: To kindle the interest for research in students.
- PO5: To acquire placement in educational institutions, engineering and Industrial firms
- PO6: To endow the students with creative and analytical skills;
   this will equip them to become Entrepreneurs

- PSO1:Interpret the principles, classifications, concepts, theories and mechanisms
- PSO2:Analyze hypothesis, procedures, properties, experimental facts and draw conclusions
- PSO3:Applytechniquesinsolvingproblems, results, sample analysis and production.
- PSO4: Discuss the latest trends and applications pertinent to higher studies and employability
- PSO5: Exhibit communicative competence and apply skills in computers, creative and critical thinking, interpersonal relationships and managing emotions in real life situations

- Course I: "Mechanics, Waves and Oscillations"

  After study of "Mechanics, waves and oscillations

  Course", the student is able to
- CO1:Understand the vector operations, rotational dynamics, energy transformations through different methods such as collisions, scattering, etc.

 CO2: Explain the causes for natural phenomenon like solar system, day seasons etc.

- CO3: Record the observations in different situations and exchange the facts from one situation to another.
- CO4: Understand the origin of production and transportation of Energy in different modes.
- CO5: Choose different measuring tools based on wave properties.

# POs, PSOs and COs Mapping

	PO1	PO2	PO2	PO3	PO4	PO5	PO6	POS1	POS2	POS3	POS4	POS5
CO1	2	2	3	3	4	1	2	4	2	3	4	3
CO2	2	3	2	2	3	2	1	3	1	3	3	3
CO3	2	3	2	1	2	2	2	2	3	2	3	3
CO4	1	3	1	2	3	3	3	3	2	1	2	2
CO5	1	2	3	3	2	4	1	3	1	2	1	1
Avg	1.6	2.6	2.2	2.2	2.8	2.5	1.4	3	1.4	2.2	2.6	2.4

1-Poor

2-Average

3-Good

4 -Excellent

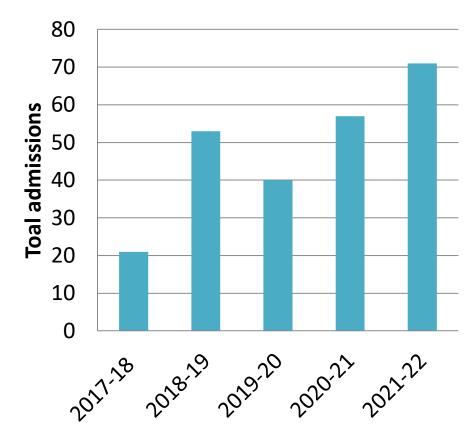
#### **FACILITIES**

- ICT enabled Classrooms
- Well equipped laboratory
- **Adequate Computer lab with required software's (Keil, LTspice)**
- **❖** Departmental library with required books
- Well designed Teaching Learning Material(TLM)

# **ADMISSIONS COMPARISON**

Year	Number of Students Admitted
2017-18	21
2018-19	53
2019-20	40
2020-21	57
2021-22	71

#### Year wise total admissions



# **RESULTS**

Year	Number Appeared	Number Passed	% Pass
2017-18	21	19	95
2018-19	23	23	100
2019-20	20	20	100
2020-21	43	42	98
2021-22	35	32	91

### STUDENT PROGRESSION

YEAR/ CATEGEORY	2017-18	2018-19	2019-20	2020-21	2021-22
TOTAL NUMBER OF PASSED OUTS	19	23	20	32	42
NUMBER JOINED IN HIGHER EDUCATION	08	06	04	12	09
NUMBER GOT EMPLOYMENT	09	14	12	16	28
TOTAL NUBER OF STUDENTS PROGRESSED	17	20	16	28	37
% OF PROGRESSION	89	87	80	87	88

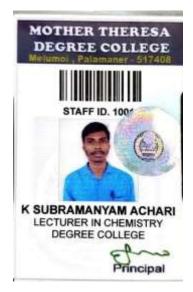
For Details Please click <a href="https://gdcplnr.edu.in/department-education.php?course=11">https://gdcplnr.edu.in/department-education.php?course=11</a>

# **Student Progression (Employment)**



K Subramanyam Lecturer in Chemistry





For more Details please click <a href="https://bit.ly/3ZetXOy">https://bit.ly/3ZetXOy</a>





B. VANI HDBF, PLMNR

DR PURUSHOTHAM

R&D, Syngene, Banlore.

G. BALAJI, BPO Mphasis, Blore





# **DEPARTMENTAL ACTIVITIES**

ACADEMIC YEAR→ ACTIVITY↓	2017-18	2018-19	2019-20	2020-21	2021-22
Student projects	02	03	05	05	08
Field trips/tour	03	02	02	02	04
Mana tv/LMS lecture videos	01	06	80	90	100
Guest lectures arranged	03	02	01	08	03
Remedial coaching	10 hours	15 hours	16(online)	18 (online) hours	15 hours

#### **COMPUTER/EXPERIMENTAL SKILLS LEARNING**



















#### SOLAR ENERGY(Best Practices)

Skill Development



**During the Cleaning** 



Maintenance of College Solar Power Project

For Solar Energy Hands on Experience Please visit to

https://youtube.com/watch?v=HG6XQwoisEk
&feature=share



After Cleaning



#### **BEST PRACTICE**

#### ELECTRICAL HOME APPLIANCES

(Skill Development)

Students Regularly attend for Maintenance/Repairs of Electrical Appliance like Fans, Tube lights, R.O water plant etc.



Our Students did Complete wiring for Renovated Seminar Hall



#### **RESEARCH FACILITY**





Muffle Furnace
Temperature up to 1700°c

(Glass Samples Preparation)

Hot air oven

**Magnetic stirrer with Heater** (Nanoparticles Preparation)



#### **REASEARCH FACILITY**



Transition Metals doped Cadmium Sulfide DMS Nano particles





**Glass Samples** 



#### RESEARCH FACILITY

**Total Number of Papers Published: 14** 

Number Submitted for Publication : 03

**Number of Papers under Manuscript Preparation: 02** 

Dr. Babu Publications <a href="https://scholar.google.com/citations?user=eUYVQPgAAAAJ">https://scholar.google.com/citations?user=eUYVQPgAAAAJ</a>

List of publications : <a href="https://bit.ly/3FTbujG">https://bit.ly/3FTbujG</a>

# STUDENT PROJECTS









# **STUDENT PROJECTS**





#### **SOLAR POND**

#### WIND TURBINE

# **Project Works**









More Details: <a href="https://bit.ly/40aHeZz">https://bit.ly/40aHeZz</a>

#### Field Trips





**Visit to Environ Industries Palamaner** 





Visit to Environ Rathna Biotech Pvt. Ltd Kolamasana palli

#### STUDENT SUPPORTIVE SERVICES

#### www.gdcplnr.edu.in

S.No	Name	URL
1	Syllabi	https://bit.ly/3JH1xHb
2	Library E Books	https://bit.ly/40xwR1P
3	ICT Material	https://bit.ly/40bH8kF
4	Old Question Papers	https://bit.ly/40yFARA
5	Study Material	https://bit.ly/3K4fb8D
6	Career Guidance	https://bit.ly/42F99Tl
7	3D LMS	https://msrphysics.teachmint.in/

### **Experiential Learning**

First Hand Knowledge Acquisition

1.Please visit

https://youtu.be/y9fjJ0o7-lg

2.Please click on below link

https://youtube.com/watch?v=HG6XQwoisEk

&feature=share

#### How best we Reach/Monitor

#### **Online Teaching**



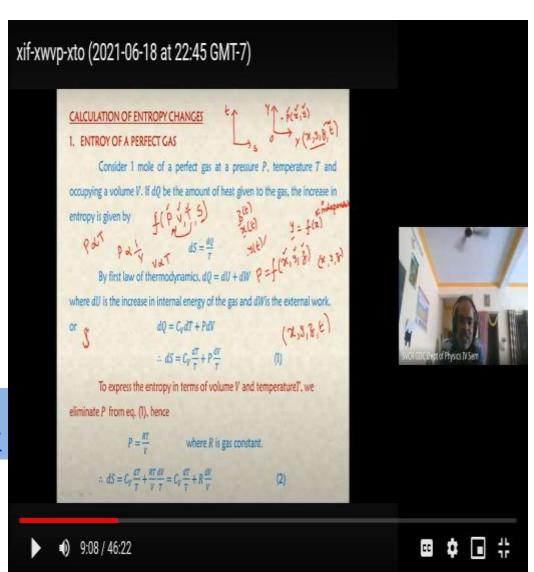
Online Teaching Videos Link 1: <a href="https://bit.ly/3JLvmGv">https://bit.ly/3JLvmGv</a>

Online Classes Attendance:

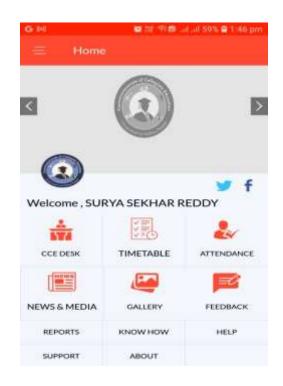
https://bit.ly/3TH33h7

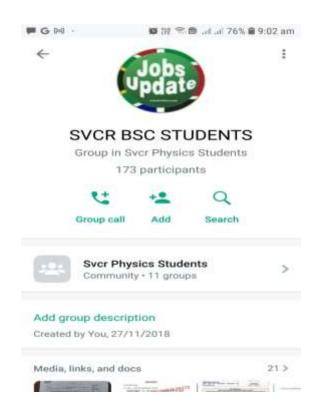
Online Exams Question paper link: <a href="https://forms.gle/rjWiwiMDJ3qB5Lbn7">https://forms.gle/rjWiwiMDJ3qB5Lbn7</a>

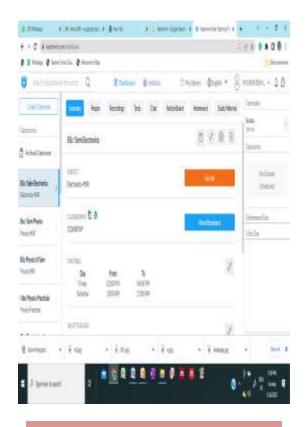
Online Exams Corrected Papers: https://bit.ly/3FSJo8c



#### Role of Apps







TLP

**Whats app Group** 

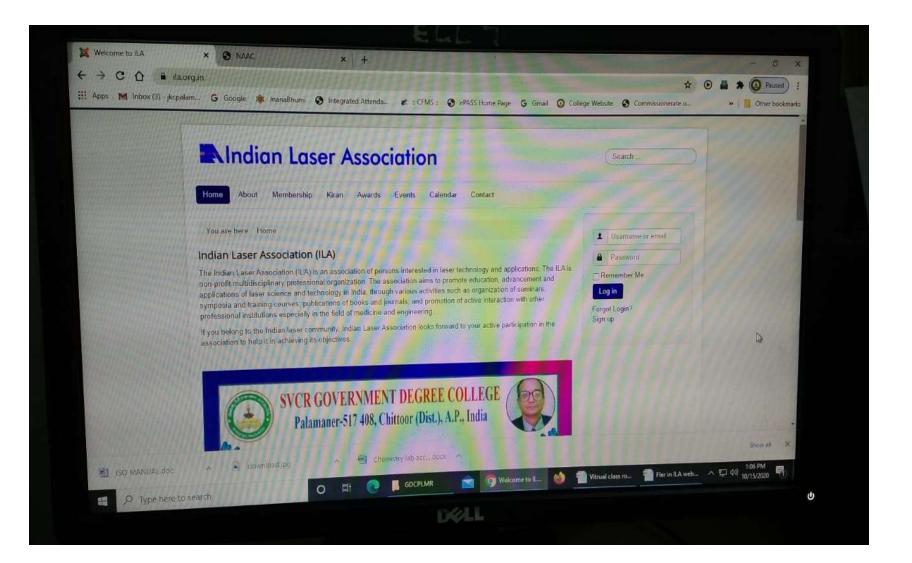
**Teach mint app** 

http://103.39.134.234/cce\_spms/

#### **WEBINARS**

S. No.	Title of the webinar	Duration	National/ international	Date
1	RAMSE-2020	2 day	International	23 <sup>rd</sup> &24 <sup>th</sup> September 2020
2	Role of spectroscopy in Material Science for Engineering applications	1 day	National	17/06/2020
3	Dr. Dilip Bhawalkar: His Role and Guidance for Development of Optics and Laser Technology in India	1 day	International	16/10/2020
4	RAMST-2021	1 Day	International	12/06/2021

#### LASER man DD Bawalkar



#### INTERNATIONAL WEBINARS



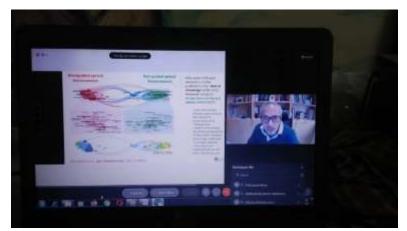
Prof. Tanabe Setsuhisa, Kyoto University, Kyoto, Japan.



**Prof. Victor Lavin**,
University of LA Laguna, Spain



Prof. Luis Carlos,
University of Aveiro, Portugal



**Prof. Michael F.Reid,**University of Canterbury, Newzaeland

## Webinars link

https://drive.google.com/drive/folders/10UNRpqkV8gaAMqjbPDUR8IQkAHSR7pO?usp=sharing

https://drive.google.com/drive/folders/10UNRp-qkV8gaAMqjbPDUR8lQkAHSR7pO?usp=sharing

## STUDENTS PARTICIPATION INTERNSHIP



Students working in Internship



Our then Principal Dr. P. Babu Showing the Device Assembled by the Students



Students interacting with Mentor



Students Receiving Certificates from Mentor

For more details visit <a href="https://youtu.be/y9fjJ0o7-lg">https://youtu.be/y9fjJ0o7-lg</a>

## STUDENTS PARTICIPATION



#### M. Bhargavi

III BSc MPCs
Participated in
Web development Work Shop
in Bengalore

#### U. Lakshmi Devi

M. Bhargavi

R.Divya

B.Babu

K. Naveen and other 6 Members selected for

Apps Development Programme,

received Free Laptops from Joining Dots Organization



## STUDENTS PARTICIPATION

3-Day Science Academy Lecture
Work shop on "Recent Advances in
Functional Materials" held during
10-12 November 2022 at NTR
Degree College Vayalpadu,
Annamayya District.A.P.





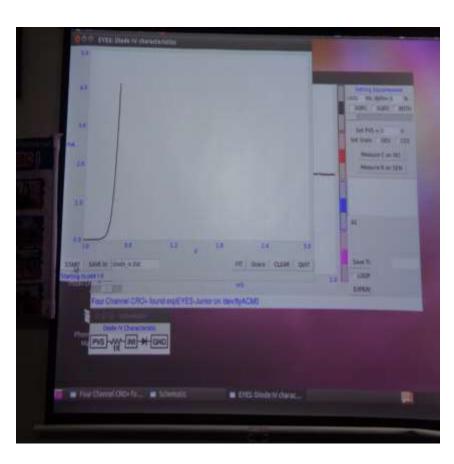
- K. Naveen,
- B. Babu,
- P. Mahalakshmi,
- U. Lakshmi Devi and 10 more Students
  Participated in Work Shop got Certificates

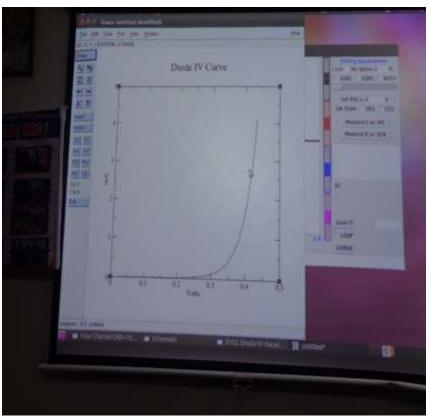
## **Exp-EYES**

- > Experiments for young engineers and scientists(Exp-EYES)
- ➤ It is useful to visualize more than fifty physics experiments
- We are using this device to explain electrical, electromagnetic and electronics concepts to the students



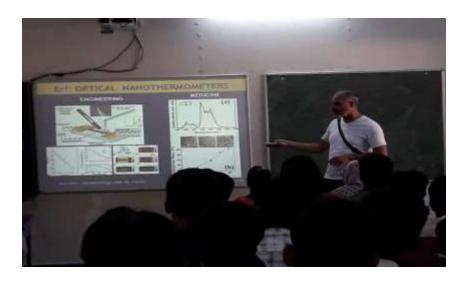
# P-N JUNCTION DIODE CHARACTERISTICS THROUGH Exp-EYES





## **GUEST LECTURES**





### **Prof. Victor Lavin,**

University of LA Laguna, Spain

Visited our College in October 2019.

Delivered Lecture on

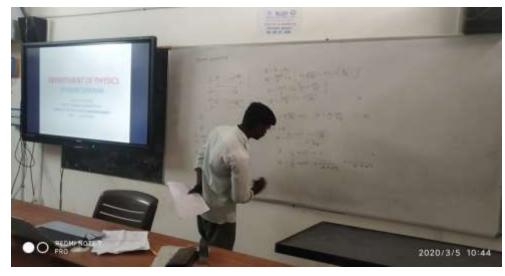
### "Nano materials",

Motivated the Students and faculty towards Research .



## **STUDENT SEMINARS**









## Quiz / Debate photographs







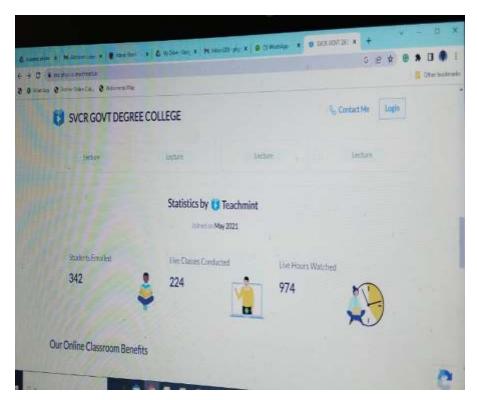


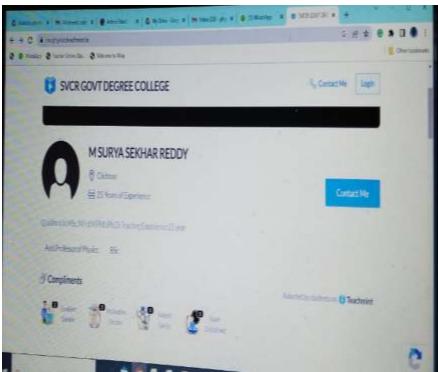




## **LMS**

#### https://msrphysics.teachmint.in/





Slow and advanced Learners: <a href="https://bit.ly/3z6wGyJ">https://bit.ly/3z6wGyJ</a>

K. Subramanyam Achari 2015-18

APEdCET-2021

Physical Sciences

State 4th Rank

ఏపీ ఎడ్సెట్-21లో జిల్లాకు చెందిన ఇద్దరు విద్యార్థులు రాష్ట్రస్థాయి ర్యాంకులు సాధించారు. ఫిజికల్ సైన్స్ విభాగంలో పలమనేరు సమీపంలోని ఎంపీ కోటూ ర్కు చెందిన కె.సుబమణ్యం ఆచారి 4వ ర్యాంకు సాధించాడు. సోషల్ స్టడీస్ విభాగంలో మదనపల్లెకు చెందిన కె.కమ లేష్ రెడ్డి 7వ ర్యాంకు సాధించాడు. - న్యూస్టుడే, తిరుపతి(ఎస్వీయూ), మదనపల్లె విద్యావిభాగం

#### ಕ್ರವಾಧ್ಯಾಯುದು ತಾವಾಲನಿ..

పలమనేరు సమీపంలోని ఎంపీ కోటూర్కు చెందిన సుబ్రహ్మణ్యం ఆచారిది వ్యవసాయ కుటుంబం. తల్లిదం ద్రులు జ్యోతి, గోవిందా దారి. పలమనేరులోని ఓ [పైవేటు కళాశాల లలో అతను అధ్యాపకు డిగా పనిచేస్తున్నారు. ప్రభుత్వ ఉపాధ్యా యుడు కావాలన్న

యుడు కావాలన్న లక్ష్యంతో ఏపీ ఎడ్ సెట్లో ఫిజికల్ సైన్స్ విభాగంలో పరీక్ష రాశాడు. రాష్ట్రస్థాయిలో నాలుగో ర్యాంకు సాధించిచాడు. అతని ఆనం దానికి అవధులు లేకుండా పోయాయి. ఉపా ధ్యాయుడు కావాలన్న తన లక్ష్యంలో మొదటి మెట్లు ఎక్కానని, త్వరలోనే తన ఆకాంక్షను నెరవేర్చుకుంటానని సుబ్రహ్మణ్యం 'మ్యాస్ టుడే'తో పేర్కొన్నారు.



S SALMA 2017-18

**Modern Physics** 

100/100





G Chithra
III Semester 2021-22



**Physics** 

100/100(10GP)



U Lakshmi Prasanna IV semester 2021-22

Modern Physics

100/100 (10GP)

Aggregate Details					
ROLLNO NAME	0321014061				
NAME	UJJANAPPA GARI LAKSHMI PRASANNA				
MEDIUM	ENG				
LSGPA					
LSGPA GSGPA ESGPA	8.26				
ESGPA					

	Mi	orks Details					
Paper Number	SUBJECTNAME	SESS	MARK	CREDIT	GRADE	GPOINT	MFLAG
1-4-112A-R20	REAL ANALYSIS	24	70	5	E	9.40	р
1-4-1128-R20	LINEAR ALGEBRA	24	51	5	A	7,50	P
3-4-116A-R20	ELECTRICITY, MAGNETISM AND	25	46	4	8	7.10	p
3-4-116A-R2P	ELECTRICITY, MAGNETISM AND		50	1	0	10.00	p
3-4-110H-R20	MODERN PHYSICS	25	75	4	0	10.00	p
3-4-1168-R2P	MODERN PHYSICS PRACTICAL		50	1	0	10.00	p
3-4-108A-R20	OBJECT ORIENTATED PROGRAMMING	25	45	4	В	7.00	P
3-4-108A-R2P	OBJECT ORIENTATED PROGRAMMING		50	- 1	0	10.00	p
3-4-108B-R20	OPERATING SYSTEMS	25	43	4	В	6.80	p
3-4-10HB-R2P	OPERATING SYSTEMS PRACTICAL		49	- 1	0	9.80	p
		1					

#### **MEMORANDUM OF UNDERSTANDING**

S.NO.	NAME OF THE INDUSTRY/INSTITUTION	NATURE OF LINKAGE	DATE FROM MOU COME IN TO FORCE
1	Pavan Power Solutions Morum Palamaner	EXCHANGE OF FACULTY SHARING OF FACILITIES SHARING OF KNOWLEDGE	2019-20
2	Rathna biotech Kolamasana palli Palamaner	EXCHANGE OF FACULTY SHARING OF FACILITIES SHARING OF KNOWLEDGE	2019-20
3	Parag Dairy Private limited Krishapuram Palamaner	EXCHANGE OF FACULTY SHARING OF FACILITIES SHARING OF KNOWLEDGE	2020-21
4	Department of Physics SVU Tirupati	EXCHANGE OF FACULTY SHARING OF FACILITIES SHARINGOF KNOWLEDGE	2019-20 (Linkage)

For more Information visit: <a href="https://drive.google.com/drive/folders/1S7h77N881s-iGZN8aUlqwIFXjDItsMSX?usp=share\_link">https://drive.google.com/drive/folders/1S7h77N881s-iGZN8aUlqwIFXjDItsMSX?usp=share\_link</a>

## INTERACTION WITH ALUMNI

#### **B.** Naveen Kumar

Trainee Software Engineer (Selected through JKC)

**WIPRO Bengalore** 

**Motivational/Counseling Class** 

Alumni Registration form:

https://forms.gle/NwfsDH1hHTgKFC5L9





https://chat.whatsapp.com/Cb cUuxSH5Wk1C5dWUO3Vmf Whatts app Group members

174





## ALUMNI FEED BACK

Alumni feed back about college and Department

a)Dr. Babu Madivala: Scientist from Japan

Click here to

view: <a href="https://drive.google.com/file/d/128fHfbfB83cHbSgfvRu1e8C40qWtb\_9D/view?usp=share\_lin">https://drive.google.com/file/d/128fHfbfB83cHbSgfvRu1e8C40qWtb\_9D/view?usp=share\_lin</a>

<u>k</u>

b) G S Prakash: Software Engineer

Click here to view: https://drive.google.com/file/d/1uo182-

xIhhDFeBlpFLYSVZlwvexnUqtX/view?usp=share link

c) E.A Aswini: IIT teaching faculty

Click here to view: https://drive.google.com/file/d/1cSt-E-6oTW y 4wUEae2Xrh3U3G-

Bfi9/view?usp=share link

d) S Afrid basha: Faculty in Degree College

Click here to view: <a href="https://drive.google.com/file/d/1y-00l-m7nNXCuDYbWNG">https://drive.google.com/file/d/1y-00l-m7nNXCuDYbWNG</a> VyykvJjacx2B/view?usp=share link

e) R. Raja sekhar Reddy: Persuing PG in MSc Physics

Click here to

view: https://drive.google.com/file/d/1q1xPdL7G7WsEyrpevEmHwX3ErybU3wr /view?usp=share

<u>link</u>

### PARENT TEACHER RELATION SHIP

SUPPORT OF PARENTS

Smt.Jyothi Sri K Govinda Achari





K. Vijaya Kumar Software Engineer

B.Sc. 2014-17

Lecturer Sri Chaithanya IIT PU college Bengalore

B.Sc. 2015-18

State EdCET 4th Ranker

Parents Contact details : <a href="https://bit.ly/3LVybYt">https://bit.ly/3LVybYt</a>



K. Ammulu Supervisor Q.C Sri City, Tirupati B.Sc. 2016-19



K. Kala III Sem B.Sc. (2021-24)

# THANK YOU