

Department of Physics
Govt.Degree College, Rajampeta.

DEPARTMENT PROFILE

2015-16 to 2023-24

1. Name of the Department : PHYSICS

2. Year of Establishment : 1980

3. Names of the Courses offered :

S. no	Programme	Course	Group
i	UG	B.Sc	M.P.Cs and MPC (EM&TM)

4. Annual / semester / choice based Credit system (Programme wise)

S.no	UG/PG	Course	System
1	UG	B.Sc.	Annual (up to 2015-16)
2	UG	B.Sc	Semester(from 2015-16 to 2022-23)
3	4 Years Honors Degree	B.Sc	Semester(2023-24 to

5. Participation of the department in

the courses offered by other departments :

6.Courses in collaboration with other :
Universities, industries, foreign institutions, etc.

7.Details of courses / programmes : Nil
Discontinued (if any) with reasons

8.Number of teaching posts:

Name of the Post	Number of Posts sanctioned	Number of Posts filled
Professor	-	-
Associate Professor	-	-
Assistant Professor	04	04

9. History of the Department:

The Department of Physics was established in 1980. Since then it has been functioning under the administrative control of the Principal and the Commissionerate of Collegiate Education, Hyderabad, A.P. It had affiliated to S.V.University Tirupathi upto 2010. It has been affiliated to Y.V University Kadapa since 2011

The Department has two Labs. It is also equipped with 1 computer, 1 LCD Projector and 1 Printer.

10. Teaching Learning Process:

The faculty members are following various teaching methods like Project method, ICT methods etc. The teachers use various teaching aids in the class like charts, graphs, newspaper clipping, LCD Projector, Computers, Smart

phones, Virtual Class etc., in addition to black board. Study material is supplied to all the students through whats app group maintained by the Faculty members. In addition to regular physical teaching, learning and evaluation tools the faculty members effectively used online tool i.e. Google Class room for all classes. Model question papers, question banks, old question papers etc are used to guide the students to face the examinations confidently. Remedial Coaching is provided to the slow learners.

In order to provide more learning experience to the students Co-curricular activities like Student seminars, Group discussions, Debate, Quiz, Field trips are conducted by the Dept. as per the Annual Curricular Plan. Essay writing, Elocution competitions are conducted occasionally .

11. OBJECTIVES OF THE DEPARTMENT :

Gain the knowledge of Physics through theory and practicals.

Understand good laboratory practices and safety.

Develop research oriented skills.

Make aware and handle the laboratory instruments/equipments.

The students will develop problem-solving skills, experimental and data analysis skills in physics.

Students learn various concepts which help them in understanding physical phenomenon in nature

12.Faculty profile with name, qualification, designation, specialization (D.Sc. / D.Litt. / Ph.D. M.Phil. etc.)

Name of the Faculty	Qualification	Designation	No. of Years of Experience	No. of Ph.D. students guided
Shaik.Mahaboob Basha	M.Sc,M.Phil.	Lecturer	18years	-

N.B.Sivarami Reddy	M.Sc,M.Ed.	Lecturer	18years	-
P.V.S.Sobhan Babu	M.Sc,B.Ed.	Lecturer	18years	-
Dr L.Rajamohan Reddy	M.Sc,Ph.D.	Lecturer	24years	-

13. List of senior visiting faculty/Invited Lectures:

S. No.	Academic Year	Name of the Visiting Faculty	Designation & Address	Date of Visit
1	2021-22	Prof K.Vamsi Krishna	Professor,dept. Of energy science and engineering,IIT,Delhi	05-01-2022
2				

14..Percentage of lecturers delivered and practical classes handled (Programme wise by temporary faculty: UG – 0%

AcademicYear	Name of the stream	Total No. of Students	No. of Teachers	Student-Teacher Ratio
2015-16	PHYSICS	94	3	1: 31.33
2016-17	PHYSICS	89	4	1: 22.25
2017-18	PHYSICS	89	4	1: 22.25
2018-19	PHYSICS	77	3	1 : 25.66
2019-20	PHYSICS	68	3	1 : 22.66

2020-21	PHYSICS	84	3	1 : 28
2021-22	PHYSICS	83	4	1 : 21
2022-23	PHYSICS	61	4	1 : 16

15. Student –Teacher Ratio: (From 2015-16 to 2020-21)

16. Student Profile: (From 2015-16 to 2023-24)

Academic Year	Name of the stream	Total No. of Applications received	No. of students joined	Applications-Admission Ratio
2015-16	M.P.Cs,M.P.C(T.M)	32	32	1:1
2016-17	M.P.Cs,M.P.C(T.M)&(E.M)	37	37	1:1
2017-18	M.P.Cs,M.P.C(T.M)&(E.M)	28	28	1:1
2018-19	M.P.Cs,M.P.C(T.M)&(E.M)	23	23	1:1
2019-20	M.P.Cs,M.P.C(T.M)&(E.M)	26	26	1:1
2020-21	M.P.Cs,M.P.C(T.M)&(E.M)	40	40	1:1
2021-22	M.P.Cs	22	22	1:1
2022-23	M.P.Cs	03	03	1:1

17. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
UG B.Sc.M.P.Cs,M.P.C(T.M)&(E.M)	100	-	Nil

18. Student Progression :

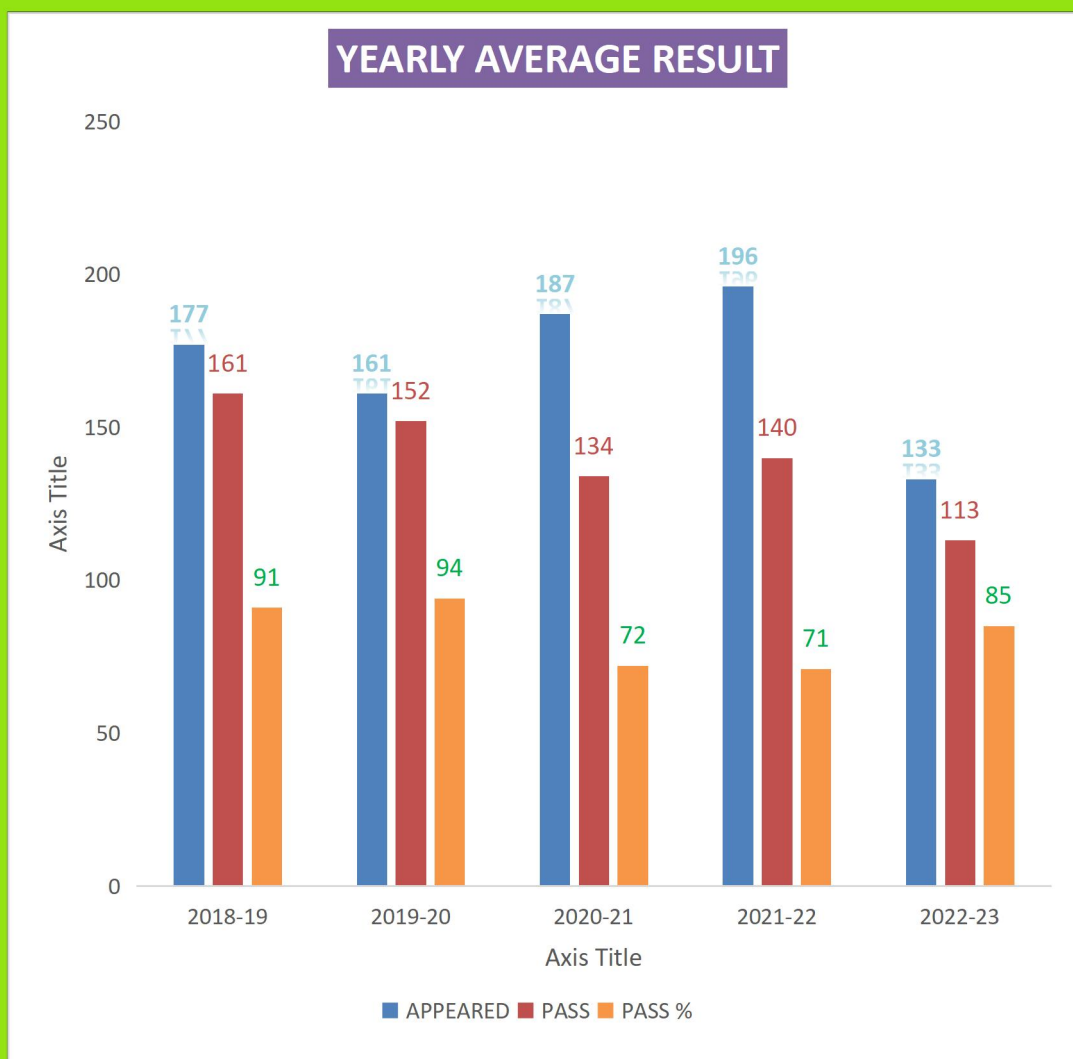
Batch	No of students gone to higher studies	No of students employed	Total
2016-19	07	04	11
2017-20	06	02	08
2018-21	06	02	08
2019-22	12	04	16
2020-23	10	03	13
2021-24	05	01	06

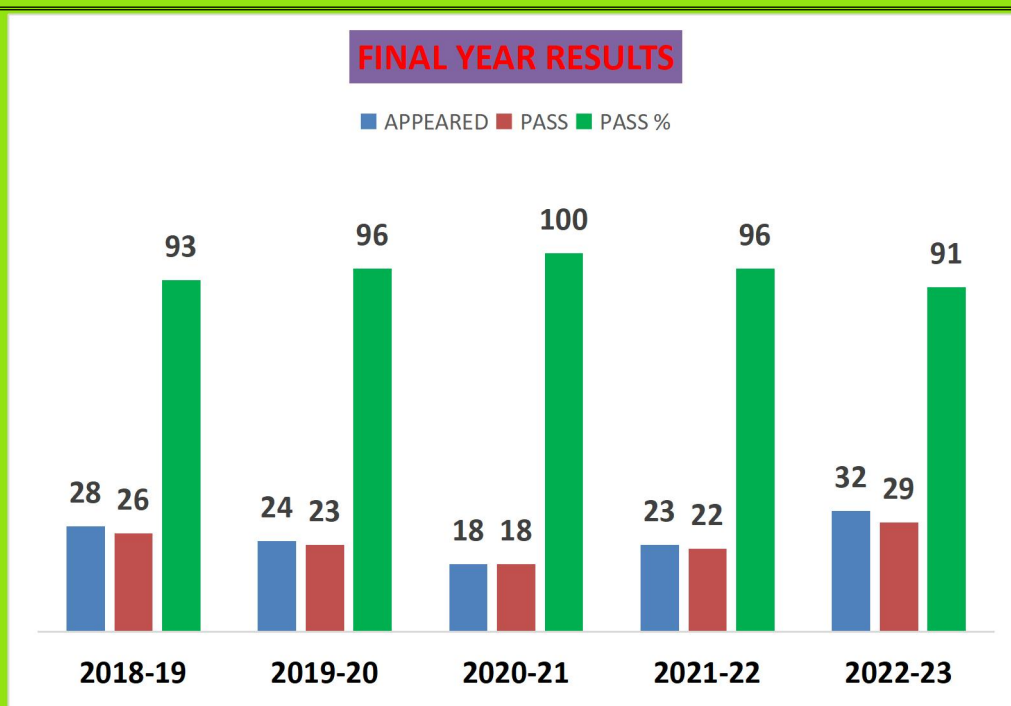
19. Results Analysis: (From 2015-16 to 2020-21)

The Department's academic results in University examinations are gradually increasing from 2015-16 to 2023-24 as shown below.

Academic Year	Appeared	Passed	Pass %
2015-16	158	124	78.48
2016-17	176	143	81.25

2017-18	207	177	85.5
2018-19	177	161	90.96
2019-20	161	152	94.4
2020-21	187	134	71.66
2021-22	196	140	71.43
2022-23	133	113	85





20. Number of academic support staff (technical) : Nil

and administrative staff; sanctioned and filled.

21..Qualifications of teaching faculty with D.Sc. / D.Litt / Ph.D. / M.Phil. / P.G.

S. No.	Qualifications of Teaching faculty	Number of Teaching faculty
1	Ph.D.	02
2	Ph.D. (Pursuing)	00
3	M.Phil.	01
4	PG	01
5	NET / SLET	00
6	B.Ed	03
7	M.Ed	01

22. Professional Competency Development Activities:

Academic year	Refresher Courses	Orientation Programmes	Short term Courses	Special training Programmes
2018-19	--	--	1	--
2019-20	--	--	1	--
2020-21			5	--
2021-22			10	--
2022-23			07	--

23. Research Activities:

Academic year	Research Projects	Articles Published	Seminar Papers Presented	Seminars attended
2015-16	Minor-1 Completed (Loyola DC, Pulivendula)	06(Loyola DC, Pulivendula)	10(Loyola DC, Pulivendula)	2(GDC(M), Kaddapa)
2016-17		07(Loyola DC, Pulivendula)	10(Loyola DC, Pulivendula)	
2017-18		04(Loyola DC, Pulivendula)	02(Loyola DC, Pulivendula)	
2018-19		02(Loyola DC, Pulivendula)	01(Loyola DC, Pulivendula)	
2019-20		03(Loyola DC, Pulivendula)	01(Loyola DC, Pulivendula)	
2020-21		02(Loyola DC, Pulivendula)	02(Loyola DC, Pulivendula)	
2021-22		02(Loyola DC, Pulivendula)	02(Loyola DC, Pulivendula)	
2022-23		02	02	

24. Research projects:

Name of the Principal Investigator	Funding Agency	Grants Received	Title of the Project	Remarks
Dr L.Raja Mohan Reddy	UGC-SERO	Rs.420000/-	Physical properties of Mn doped ZnO nano films deposited by sol-gel method	Completed (2014-19) (Loyola DC,Pulivendula)

25. Research Articles Published in the International Journals with Impact Factor:

Name of the Faculty member	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Dr.L.Raja Mohan Reddy	01	01	03	02	02	01	10
N.B.Sivarami Reddy					02	01	03

26. Research Articles Published in the Seminar Proceedings with ISBN Numbers:

Name of the Faculty member	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Dr.L.Raja Mohan Reddy	03	02	---	---	---	---	05

27. Papers Presented in Seminars/ Conferences:

Name of the Faculty member	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Dr.L.Raja Mohan Reddy	02	01	01	02	02	02	10
N.B.Sivarami reddy						02	02
S.MahaboobBasha						02	02

28. Books published with ISBN Number

Name of the Faculty member	Title of the Book	ISBN Number	Academic year
PVS Sobhan Babu	Solar Energy	978-93-5457-982-0	2021-22
PVS Sobhan Babu	Electrical Appliances	978-93-5578-016-4	2021-22
PVS Sobhan Babu	Public Relations	978-93-5565-208-8	2021-22

29. Workshops organized:

S. no	Date organized	Sponsor	Venue	Name of the workshop and topic	Participant s	Remarks
	Nil					

30. Consultancy Services: Nil

31. Awards / Recognition received by faculty and students :

S.No	Name of the Awardee	Name of the Award	Year
1	Sri.N.B.Sivaramireddy	Certificate of Appreciation by APCCE(State level) For RRC Master Trainer	2020
2	Dr.L.Rajamohan Reddy	Certificate of Recognition for Beat COVID Campaign	2020
3	Dr.L.Rajamohan Reddy	Certificate of Appreciation from AICTE	2022
4	Sri.N.B.Sivaramireddy	Certificate of Appreciation from AICTE	2022
5	Dr.L.Rajamohan Reddy	Best NSS P.O (University Level)	2023

32.Details of Infrastructure facilities

Library

- ✓ No. of Books : 42
- ✓ No of Journals: 07
- ✓ No. of Beneficiaries : 130
- ✓ Whether books issued to students: No
- ✓ Whether Issue Register is maintained: No

Internet facilities for Staff and Students:

- ❖ No. of Computers: 1 Printers: 01
- ❖ No of Computers having Internet connectivity : 1
- ❖ Users: Staff and students of UG

Class rooms with ICT facility:

- Digital class room & 01 Portable LCD Projector

Laboratories:

- No. of Laboratories : 02

33. Teaching methods adopted to improve student learning

- Lecture Method
- Demonstration Method
- Lecture cum Demonstration Method
- Assignment Method
- ICT Method
- Power Point Presentation Method
- Field trips
- Project Method (Student Study Projects)
- Class room Student seminars
- Question-Answer Sessions
- Quiz Off line & Online
- Debate
- Group Discussion

34.Participation in Institutional Social Responsibility (ISR) and Extension activities

- ❖ Students and staff of the department are actively participating in RRC, YRC, Eco Club, NCC and NSS activities of the college.
- ❖ The students are encouraged to participate in social services like Community Health Programmes, Blood Donation Camps, Tree Plantation, Yoga training programmes and HIV / AIDS Awareness programmes and celebrations of National festivals.

35.Interdisciplinary Activities: Inter-faculty Forum (IFF)

- ❖ The Department plays an important role in Inter-faculty Forum activities and contributes a lot for achieving the objective “Discuss-Debate-Deliver”.

- ❖ In IFF the Faculty members discuss the topics related to academics, syllabus, UG Schemes and also about the latest trends that are being followed across the globe in the field of education.

36. Preparation & supply of study material:

- ❖ The Dept. of Physics Prepared Study material for I , II and III year Gene.
- ❖ The material was prepared in a lucid and simple style. It is a Student friendly material with model question papers .
- ❖ The study material prepared by the department is supplied to the students free of cost. It is very helpful in achieving better results.

37.Field Trips/ Educational Tour

2015-16: Regional Science Centre visited on 29th January 2016

2016-17: The Department conducted a Field Trip 1. on 27.01.2017 on

“Functioning of Signaling System in the Railway Stations”

2017-18: EDUCATIONAL FIELD TRIP TO BSNL OFFICE ,RAJAMPETA.

2021-22: 30-04-2022 visited the former of Akepati Varaprasad Reddy.

He explained how to use Solar energy, Solar sprayers and inverters with an objective to let the students learn by themselves.

38.Collaboration

- ❖ The Dept. of Physics has successfully signed collaboration with Prof K.Vamsi Krishna ,Dept of Energy and Engineering,IIT Delhi to share the knowledge in Academic fields.

- ❖ The Department has also made collaboration with Prof M.V.Sankar ,Dept of Materiel science and Nanotechnology,YV University Kadapa to share knowledge on academic enrichment.

39.Best Practice:

- (1). Physics experiments are conducted through virtual mode to improve the skills of the students.
- (2). Successfully used Online Teaching, learning & evaluation tool i.e. Google Class room”
- (3). Regular Maintaining & Cleaning Programme to SOLAR PANNELS

40.SWOC analysis of the department and Future Plans:

i. Strength

- ✓ Highly Qualified and experienced faculty
- ✓ Good infrastructure including Labs
- ✓ Departmental Library
- ✓ Consistent good feedback from the students indicates the excellent quality of the teacher
- ✓ Effective Teaching Methods

ii. Weakness

- ✓ Decreasing enrolment in UG courses
- ✓ Enrolment of substandard students in the department
- ✓ College is situated away from the town

iii. Opportunities

- ✓ Three reputed Universities are located nearby to pursue Physics education and research
- ✓ Bright opportunities for placements in MNC's through Recruitment Drives conducted by JKC
- ✓ Availability of knowledge resources like text books / reference books / study materials previous exam papers for different competitive exams like PG CET etc.
- ✓ Students are motivated to take part in Student Study Projects .

iv. Challenges:

- ✓ To provide hitech facilities to avoid threat from corporate educational institutions
- ✓ To enhance the student enrolment in UG courses
- ✓ To develop research activities in future
- ✓ Improving the % of results of economically, educationally and socially backlog students.

v. Future Plans

- ✓ To introduce some inter disciplinary certificate courses.
- ✓ To inculcate, motivate and inspire students to get involved in research activities by conducting more conferences / seminars / symposia / workshops
- ✓ To arrange field trips to Software Companies.
