

V.K.V GOVERNMENT DEGREE COLLEGE, KOTHAPETA

(Accredited by NAAC “B” Grade)

(An ISO 9001:2015 Certified College by HYM International Certifications Pvt. Ltd.)

PHYSICS

DEPARTMENT PROFILE



PHYSICS

RESEARCH



About the Department.

- **The Department of Physics started B.Sc MPC (TM) programme in the year 1985-86.**
- **In the year 2005-06 a self-finance group MPCs was added to the exiting one.**
- **Now the Department of Physics is working with one regular Faculty and one Guest faculty.**
- **The faculty with high Qualification & experience like M.Ed, MPhil, NET and Ph.D were worked in the department.**
- **For the last 35 years it has been serving its best to the students of Kothapeta and its surroundings.**
- **Earlier this college was affiliated to Andhra University, Visakhapatnam. Now it is affiliated to Adikavi Nannaya University, Rajahmundry.**
- **The Department having well equipped class rooms\ cum laboratory.**



TEACHING FACULTY WORKED IN DEPARTMENT

| S. No. | Name of the Faculty | Year of Joining in the College | Year of Leaving the College | Photo | Profile |
|--------|---------------------|--------------------------------|-----------------------------|---|----------------------------|
| 1. | B. Vishnu Murthy | 2017 | Dec 2021 |  | Click here |
| 2. | A. Simhadri | 2017 | Oct 2021 |  | Click here |
| 3. | B. Naresh | | | | Click here |

THE PRESENT TEACHING FACULTY:

| S. No. | Name of the Faculty | Date of Joining in the Service | Year of Joining in the College | Photo | Profile |
|--------|--|--------------------------------|--------------------------------|---|----------------------------|
| 1. | Dr. K. Ankama Rao M.Sc., M.Phil., Ph.D | 14-03-1997 | 11-10-2021 |  | Click here |
| 2. | Smt K. Sai Lakshmi M.Sc., BEd | -- | 07-04-2022 |  | Click here |

THE PRESENT NON -TEACHING STAFF

| S. No. | Name of the Faculty | Date of Joining in the Service | Year of Joining in the College | Photo |
|---------------|--|---------------------------------------|---------------------------------------|---|
| 1. | Sri A. Samuel Store Keeper | 03-08-1992 | 04-10-2021 |  |
| 2. | Sri. S. Vinayaka Rao Record Assistant | 08-04-1994 | 09-10-2021 |  |

VISION

To deliver innovative and responsive education with high quality and motivate the students to gain advanced skills which helps the society.

MISSION

- **To learn both practical and theoretical physics with applied capabilities.**
- **To improve analytical, creative thinking among the students.**
- **To motivate the students being responsible to the need of the society.**
- **To encourage the students towards the participative learning.**
- **To apply the practical knowledge in our daily life.**

Profile of the faculty

1. Dr. K. Ankama Rao

- Delivered guest lecturers in various colleges.
- Acted as Academic Auditor for various colleges as per CCE orders
- National Seminar/ webinar organized.
- Head, Department of Physics, V.S.R & N.V.R College, Tenali (Autonomous), A.P. from 12-12-2012 to 11-09-2021.
- Convener for Examination Committee, V.S.R & N.V.R College, Tenali (Autonomous), A.P. from 2012-2021.
- SIP Coordinator 2019-2021
- APOSS Book editor
- IQAC Member and convener for Criteria – IV
- IQAC Coordinator, VKV GDC, Kothapeta
- BOS University Nominee for Physics of SVKP & Dr K.S. Raju Arts and Science College, Penugonda
- AKNU BOS member as subject expert in physics

2. Smt. K. Sai Lakshmi

- Delivered guest lecturers in various colleges.
- Acted as member in internal Audit.

CURRICULAR ASPECTS

- **The Affiliated University (AKNU) syllabus is strictly implemented.**
- **Feedback is taken from the students.**
- **In general, the syllabus is revised periodically by the APSHE and Affiliated University.**
- **Corresponding with University Board of Studies about the Syllabus.**

Teaching, Learning and Evaluation

- **Bridge courses are arranged for the needy basing on the post admission analysis.**
- **Remedial coaching arranged for academically backward students.**
- **In addition to Lecture method, Interactive methods, Student Seminars, Group Discussions Quiz are arranged for effective learning.**
- **Teaching aids such as models, ICT based learning using LCD Projectors are used.**

DEPARTMENT OF PHYSICS

PROGRAMMES OFFERED

| S.No | PROGRAMME NAME | NAME OF THE COMBINATIION | MEDIUM |
|------|----------------|--------------------------------------|---------|
| 1 | B.Sc. MPC | MATHS PHYSICS CHEMISTRY | ENGLISH |
| 2 | B.Sc. MPCs | MATHS PHYSICS COMPUTER SCIENCE | ENGLISH |
| 3 | B.Sc. | Physics (minor) | ENGLISH |

STUDENTS PURSUING B.Sc. PHYSICS & PHY(Minor) DURING THE ACADEMIC YEAR 2024-2025

| Group | First Year | Second Year | Third Year | Total |
|--------------------|------------|-------------|------------|-------|
| MPC | 05 | -- | -- | 05 |
| MPCs | -- | -- | 09 | 09 |
| Physics (Minor) | 17 | 09 | -- | 26 |

Infrastructure and Learning Resources

- Fully equipped laboratories and Smart Boards in Class Rooms.
- Collection of Reference books in departmental library.
- Teachers prepared PowerPoint Presentations.

PHYSICS LABORATORY



PHYSICS DEPARTMENT

EQUIPMENT



Department of Physics having MOU with the following Organizations

- Government Degree college, Ravulapalem
- SVKP& Dr K.S.Raju Arts and Science College(A), Penugonda

MOU Activities

| S. No. | Name of the Guest and address | Name of the Topic | Date | Number of Students attended |
|------------------|--|--|------------|-----------------------------|
| 2022-2023 | | | | |
| 1. | Sri Ch. S. V. V. N. Satyamurthy Lecturer in Physics, Government Degree College, Ravulapalem | Lasers | 15-09-2022 | 31 |
| 2 | Sri Ch. S. V. V. N. Satyamurthy Lecturer in Physics, Government Degree College, Ravulapalem | Multistage Rocket | 21-02-2023 | 15 |
| 2023-2024 | | | | |
| 1. | Sri S. Srinivasa Rao Lecturer in Physics, SVKP & Dr KS Raju Arts and Science College, Penugonda | Nuclear Physics | 29-03-2022 | 13 |
| 2. | Sri S. Srinivasa Rao Lecturer in Physics, SVKP & Dr KS Raju Arts and Science College, Penugonda | Renewable energy | 28-04-2022 | 24 |
| 3. | Sri Ch. S. V. V. N. Satyamurthy Lecturer in Physics, Government Degree College, Ravulapalem | Interference of light | 12-07-2022 | 27 |
| 4. | Sri Ch. S. V. V. N. Satyamurthy Lecturer in Physics, Government Degree College, Ravulapalem | Alternating Currents | 25-08-2022 | 23 |
| 2024-2025 | | | | |
| 1. | Sri Ch. S. V. V. N. Satyamurthy Lecturer in Physics, Government Degree College, Ravulapalem | Industry and Renewable Epicentre | 01-10-2024 | 52 |
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Department of Physics

Result Analysis

RESULTS 2022-23

| S.No | Year | SEM | Paper | Appeared | Passed | % of pass |
|------|------|-----|------------|----------|--------|-----------|
| 1 | I | I | I | 17 | 10 | 58.8 |
| 2 | I | I | SDC | 16 | 14 | 81 |
| 3 | I | II | II | 14 | 11 | 78.5 |
| 4 | II | III | III | 34 | 17 | 50 |
| 5 | II | IV | IVA | 31 | 07 | 23 |
| | | | IVB | 31 | 16 | 51.6 |
| 6 | III | V | VI C | 39 | 31 | 80 |
| | | | VII C | 39 | 34 | 87 |
| 7 | III | VI | Internship | 38 | 38 | 100 |

RESULTS 2023-24

| ODD SEMESTR | | | | | | |
|--------------|------|-----|--------------------|----------|--------|-----------|
| S.No | Year | SEM | Paper | Appeared | Passed | % of pass |
| 1 | I | I | I | 16 | 14 | 87.5 |
| 2 | I | I | II | 16 | 14 | 87.5 |
| 3 | II | III | III | 14 | 13 | 92.8 |
| 4 | III | V | VI C | 30 | 22 | 73.4 |
| | | | VII C | 28 | 24 | 85.7 |
| EVEN SEMESTR | | | | | | |
| S.No | Year | SEM | Paper | Appeared | Passed | % of pass |
| 1 | I | II | II | 9 | 4 | 44.4 |
| 2 | I | II | SDC | 9 | 9 | 100 |
| 3 | II | IV | IV A | 14 | 14 | 100 |
| | | | IV B | 14 | 14 | 100 |
| 4 | III | VI | 6 month Internship | 12 | 12 | 100 |

DEPARTMENT ACTIVITIES

Guest Lecturers Arranged

| S. No. | Name of the Guest and address | Name of the Topic | Date | Number of Students attended |
|------------------|--|------------------------------|-------------------|-----------------------------|
| 2022-2023 | | | | |
| 1. | Sri Ch. S. V. V. N. Satyamurthy Lecturer in Physics, Government Degree College, Ravulapalem | Lasers | 15-09-2022 | 31 |
| 2 | Sri Ch. S. V. V. N. Satyamurthy Lecturer in Physics, Government Degree College, Ravulapalem | Multistage Rocket | 21-02-2023 | 15 |
| 3. | Sri B. Adinarayana Murthy , Lecturer in Physics, Govt Degree College, Razol | Physics in daily life | 25-03-2023 | 14 |
| 4. | Sri K. Suresh Kumar Lecturer in Physics | Diffraction of Light | 26-07-2023 | 28 |
| 2023-2024 | | | | |
| 1. | Sri S. Srinivasa Rao Lecturer in Physics, SVKP & Dr KS Raju Arts and Science College, Penugonda | Nuclear Physics | | 13 |
| 2. | Sri S. Srinivasa Rao Lecturer in Physics, SVKP & Dr KS Raju Arts and Science College, Penugonda | Renewable energy | | 24 |
| 3. | Sri Ch. S. V. V. N. Satyamurthy Lecturer in Physics, Government Degree College, Ravulapalem | Interference of light | | 27 |
| 4. | Sri Ch. S. V. V. N. Satyamurthy Lecturer in Physics, Government Degree College, Ravulapalem | Alternating Currents | | 23 |

| S. No. | Name of the Guest and address | Name of the Topic | Date | Number of Students attended |
|------------------|--|----------------------------------|------------|-----------------------------|
| 2024-2025 | | | | |
| 1. | Sri Ch. S. V. V. N. Satyamurthy Lecturer in Physics, Government Degree College, Ravulapalem | Industry and Renewable Epicentre | 01-10-2024 | 52 |
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Internships 2022-23

| S.No | Project | No.of students allotted | Name of the project | Duration | Name of the Industry | No of students completed |
|------|--------------------------|-------------------------|--|-----------|--|--------------------------|
| 1 | CSP | 14+13=27 | Access to safe water drinking, Water pollution | One month | Students local area | 27 |
| 2 | Short term internship | 13 | -- | 2 month | Lakshmi Aluminium Industry, Kothapeta | 13 |
| 3 | Semester term internship | 04+06 | -- | 6 month | Rama and Royal PVC industry, Kothapeta | 10 |

2023-24

| S.No | Project | No.of students allotted | Name of the project | Duration | Name of the Industry | No of students completed |
|------|--|-------------------------|--|-----------|--|--------------------------|
| 1 | CSP (6-5-2023 to 5-6-2023) | 08 | Access to safe water drinking, Water pollution | One month | Students local area | 08 |
| 2 | Short term internship (6-5-2023 to 4-7-2023) | 09 | -- | 2 months | Glossary Soft Tech Pvt. Ltd. | 09 |
| 3 | Semester term internship (12-2-2024 to 31-5-2024) | 05 (MPC) + 07 (MPCs) | -- | 6 months | Rama and Royal PVC industry, Kothapeta + Sri Lakshmi Aluminum Industry Kothapeta | 04 + 07 |

2024-25

| S.No | Project | No.of students allotted | Name of the project | Duration | Name of the Industry | No of students completed |
|------|--------------------------|-------------------------|---------------------|----------|-------------------------------|--------------------------|
| 1 | CSP | | | | | |
| 2 | Short term internship | | | | | |
| 3 | Semester term internship | 05 | -- | 6 months | CODENEKSA PVT. LTD., KAKINADA | 05 |

Important Days Observed

| S. No. | Name of the Guest and address | Day Celebrated | Date | No. of Students attended |
|------------------|---|---|-------------------|--------------------------|
| 2022-2023 | | | | |
| 1. | Dr K. Suresh. Lecturer in Physics Govt. Arts College (A), Rajamahendravaram | Energy Conservation week | 16-12-2022 | 37 |
| 2 | Chief Guest: Sri B. Vishnu Murthy, Rtd Principal (FAC), VKV GDC, Kothapeta Guest of Honor: Dr. B. Ram Prasad, Dt. Coordinator, Jana Vignana Vedika | National Science Day | 28-02-2023 | 54 |
| 2023-2024 | | | | |
| 1. | Lecturer in Physics Govt. Degree College, Tuni | Energy Conservation week | 18-12-2023 | 21 |
| 2. | Sri B. Seshagiri Rao, School Asst. Science, ZPH School, Vanapalli | National Science Day | 28-02-2024 | 55 |
| 2024-2025 | | | | |
| 1. | Sri. N. Satyanarayana HM, ZPPGH School, Kothapeta | National Science Day | 28-02-2025 | 48 |
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Best Practice of the Department

| S. No. | Name of the Activity | Name of the Organization | Date | Number of Students Participated |
|------------------|--|--|------------|---------------------------------|
| 2022-2023 | | | | |
| 1. | School to college practical orientation Physics Practical Awareness programme to the high School students | Priyadarsini School students, Kothapeta | 17-11-2022 | 34 |
| 2 | Science exhibition visit Awareness programme to the students | Girls High School students, Kothapeta | 13-12-2022 | 28 |
| 2023-2024 | | | | |
| 1. | School to college practical orientation Physics Practical Awareness programme to the high School students | Girls High School Kothapeta | 10-03-2022 | 26 |
| 2024-2025 | | | | |
| 1. | Save energy and save money | | | |

Industrial Tour

| S. No. | Name of the Organization and address | Date | Number of Students participated |
|------------------|--|-------------------|---------------------------------|
| 2022-2023 | | | |
| 1. | "SRI LAKSHMI ALUMINIUM INSUSTRY" Kothapeta | 17-08-2022 | 24 |
| 2023-2024 | | | |
| 2. | "RAMA & ROYAL PVC COMPANY" Kothapeta | 14-03-2024 | 14 |
| 2024-2025 | | | |
| 3. | "SRI LAKSHMI ALUMINIUM INSUSTRY" Kothapeta | 01-03-2025 | 08 |

Certificate Courses offered

| S. No. | Name of the Course | Duration of the Course | Number of Students Completed |
|------------------|------------------------------------|--|------------------------------|
| 2022-2023 | | | |
| 1. | Basic Electrical Appliances | 01 April 2023 to 30 April 2023 | 20 |
| 2023-2024 | | | |
| 1. | Basic Quantum Mechanics | 18 January 2022 to 04 March 2022 | 20 |
| 2024-2025 | | | |
| 1. | Electrical Winding | 05 February 2025 to 04 March 2025 | 09 |
| | | | |
| | | | |

Extension activities

| S. No. | Name of the School | Name of the activity | Date | Number of Students participated |
|------------------|---------------------------------------|---|-------------------|---------------------------------|
| 2022-2023 | | | | |
| 1. | Priyadarsini School, Kothapeta | Orientation to High Students on Physics Practicals | 17-11-2022 | 98 |
| 2023-2024 | | | | |
| 2. | Govt. Jr College, Kothapeta | Orientation to Jr college Students on Physics Practicals | 24-02-2024 | 52 |
| 2024-2025 | | | | |
| 3. | ZPPH School, Kothapeta | Orientation to High Students on Physics Practicals | 28-02-2025 | 49 |
| | | | | |