

DEPARTMENT OF PHYSICS

e-mail ID: physicskgc2018@gmail.com

BRIEF HISTORY OF THE DEPARTMENT:

The Department of Physics in the present Kakatiya Government College has originated from the private sector college called “Kakatiya Science College”. This was taken over by the Government of A.P., Medical and Health Department w.e.f. 01-02-1977, (G.O.Ms NO: 54 M & H, dated 18-01-1977). The new college was renamed as “Kakatiya Degree College” (Science). The KGC was finally taken over by the Government of A.P. Educational Department w.e.f. 01-04-1978 (GO MS NO.: 804 Edn.,dated 02-08-1978). On the day of 21-05-1982, the present “Kakatiya Government College” was formed.

The Department of Physics and its laboratories were operated in the nursing hospital building adjacent to Church opposite to Maternity Hospital, Hanamkonda, and it was shifted to the present premises in the year **1978**.

ABOUT THE DEPARTMENT

The Department maintains a tradition of excellence in teaching at both undergraduate and postgraduate levels. Faculty of the department participate in research in the active and exciting areas of physics. The Physics Department is committed to continuous improvement in the quality of education by enhancement of the knowledge of students and staff members. The Physics Department has highly qualified staff & is well equipped with laboratories. The department presents a unique opportunity to study the exciting field with the guidance of well-qualified teachers.

VISION AND MISSION

Vision:

- Popularize the subject among the students

Mission

Lay strong foundation of the subject in the students leading to further higher studies and research

- Simplification of the subject by the faculty in the form of simplified notes and easy to understand lectures.
- Conducting programmes like Physics stage shows/ certificate courses and symposia, giving clarity of Physics phenomena
- Inculcating interest in the subject among the students by involving them in research activities.

FACILITIES

- The department has a separate Departmental Library with **150** reference and text books.
- The department has 2 computers with internet facility.

Programme Outcomes:

Students of Physical Science are expected to

- Inculcate scientific thinking and awareness.
- Understand the basic concepts, fundamental principles, and the scientific theories related to various scientific phenomena of Physics.
- Acquire the skills in handling scientific instruments in the laboratory, and planning and performing experiments in a proper manner.
- Explain the basic scientific principles and methods.
- Analyze the applications of mathematics to the problems in physics and interpret the mathematical results.

Course outcomes:

- By the end of first year the student should learn a thorough understanding of mechanics and waves and oscillations.
- By the end of second year the students will have understanding of thermodynamics and optics
- By the end of the third year the students should acquire thorough knowledge of electromagnetism and modern physics
- By the end of the course a firm foundation in the subject is laid for further higher studies and research.

Laboratory Facilities

The college has a well-equipped and spacious laboratory, which can accommodate handsome number of Students comfortably.

The Department of Physics actively promotes the ethical principles in scientific research, critical thinking, and openness to social, scientific, technological and educational changes.

NAMES OF THE PROGRAMMES/ COURSES OFFERED (AT PRESENT)

The Physics department offers the following UG and PG courses.

1. Mathematics-Physics-Chemistry --- EM
2. Mathematics -Physics-Computer Science --- EM
3. M.Sc. (Physics) with specialization in Solid State Physics - EM

ANNUAL PROGRAMMES/ COURSES (Year Wise) Up to 2015-16

1. Mathematics -Physics-Chemistry --- EM
2. Mathematics -Physics-Chemistry --- TM
3. Mathematics -Physics-Computer Science --- EM
4. Mathematics -Physics-Computer Science --- TM
5. M.Sc. (Physics) with specialization in Solid State Physics --- EM


C.B.C.S. PROGRAMMES : COURSES (Semester Wise) from 2016-17 Up to 2017-18


1. Mathematics -Physics-Chemistry --- EM
2. Mathematics -Physics-Chemistry --- TM
3. Mathematics -Physics-Computer Science --- EM
4. Mathematics -Physics-Computer Science --- TM
5. M.Sc. (Physics) with specialization in Solid State Physics --- EM


Kakatiya Government College. Hanamkonda
Department of Physics


MSC Physics (PG) Students Progression Report: 2013-2018


| S.No. | Name of the M.Sc.Student | Year of Study | Outgoing Year | Hall Ticket No. | Contact Mobile No. | UGC-CSIR NET/ TS SET/ GATE Qualificatiion | Present Engagement | Nature of Engagement | Topics of Ph.D./Research Project |
|-------|--------------------------|---------------|---------------|-----------------|--------------------|----------------------------------------------|--------------------------------------------------------------------------------------|----------------------|----------------------------------|
| 1 | K.Ramya | 2013-15 | 2015 | | 9059384126 | GATE 2016 (PH16S22139054) AIR: 2320 | Asst.Prof of Physics, TSSWRDC Mulugu | Contractual | |
| 2 | Sreematha | 2014-16 | 2016 | 15006S0421 | 6309763634 | | Asst.Prof of Physics, Telangana University, Nizamabad, Telangana | Contractual | Nanomaterial |
| | | | | | | | Pursuing Ph.D. with Chaithanya Institute of Technology and Science, Hanamkonda | Part Time | |
| 3 | Myrunneesa Begum | 2014-16 | 2016 | 15006S0417 | 6303087539 | | Completed Research Project, at HCU | Regular | Magnetic Materials |
| | | | | | | | Currently doing B.Ed.(Phy.Sci) | | |
| 4 | K.Mounika | 2015-17 | 2017 | 16006S0418 | 8978697796 | UGC-CSIR NET June 2018 | | | |
| 5 | M.Kiran Kumar | 2015-17 | 2017 | 16006S0402 | 8500385152 | SET-2018 | Lecturer In Physics,TSWRS khamamm | Contractual | |
| 6 | S.Raghava | 2015-17 | 2017 | 16006S0401 | 8121131471 | SET-2018 | Private School Teacher | | |
| 7 | P.Supraja | 2016-18 | 2018 | 17006S0429 | 8328183122 | HCU-PhD 2018 HCU-PhD 2019 PCU-PhD-2019 | Pursuing Ph.D. with Nanogenerator Harvesting Energy NIT Warangal | Regular | |
| | | | | | | JEST-2019 AIR: 656 | | | |
| | | | | | | GATE-2019 AIR: 1452 | | | |

| | | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Name in Full | : M MASOOD AHMED MAHMOODI |  |
| Designation | : ASSISTANT PROFESSOR OF PHYSICS | |
| Father's name | : M JAMEEL AHMED MAHMOODI | |
| Mother's name | : KALEEM ANWARI | |
| Date of Birth | : 02-05-1972 | |
| Qualifications | : M.Sc. (PHYSICS), SET | |
| Teaching Experience | : 6 YEARS | |
| Published: Single/ Joint | : ONE (JOINT), IJSET, VOLUME 6, No 1, 2017, 326-331 | |
| Training Programmes Attended | : Refresher Course :01, WORKSHOP :03 | |
| Confidential Services to Govt. Bodies | : VERIFICATION OFFICER, KU. TRANSLATOR, PHYSICS PAPERS, MAY 2019, TU. | |
| E-mail : | mas7864u@gmail.com | Contact No. : 9440584730 |
| Member on | 1.BoS Member, Dept.of Physics, Kakatiya university, Warangal 2. BoS Member, Dept.of Physics, GDC Siddipet | |
| Academic Council for evaluation: | Chief examiner | |
| Residential Address: | 13-8-112, SHAIRPURA STREET, WARANGAL (U), TS, 506002 | |

| | | | |
|----------------------------------|----------------------------------------|--------------------------------------------------------------------------------------|--------------------------|
| Name in Full | : SREENIVAS BOORGU |  | |
| Designation | : ASSISTANT PROFESSOR OF PHYSICS | | |
| Father's name | : MUTHAIAH | | |
| Mother's name | : SAVITHRI | | |
| Date of Birth | : 15 th December,1982 | | |
| Qualifications | : M.Sc,B.Ed, NET (Ph.D.) | | |
| Teaching Experience | : 6 YEARS | | |
| Training Programmes Attended | : RC-1 at KU Wgl.,OC – 1 at OU Hyd. | | |
| E-mail : | srinuburugu@gmail.com | | Contact No. : 9492309885 |
| Member on | LIFE MEMBER OF IAPT | | |
| Academic Council for evaluation: | Chief examiner | | |
| Residential Address: | H.No 2-10-749, SBH Colony, Hanamkonda. | | |

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|
| Name in Full | : RAJU BANDARI |  | |
| Designation | : ASSISTANT PROFESSOR OF PHYSICS | | |
| Father's name | : RAJARAM | | |
| Mother's name | : LAKSHMI | | |
| Date of Birth | : 02.07.0977 | | |
| Qualifications | : M.Sc. (PHYSICS), SET | | |
| Teaching Experience | : 6 YEARS | | |
| Books Published | : 1.EAMCET – PRASHNALA NIDHI(Telugu Medium) Question Bank(Telugu akademy) – ISBN :818180262 1.B.Sc.,Third Year Physics.- Electromagnetism(Telugu akademy) ISBN : 978-81-8180-512-6 | | |
| Training Programmes Attended | : RC – 1 at MANUU HYD., OC-1 at JNTU HYD | | |
| Confidential Services to Govt. Bodies : | | | |
| E-mail : | rajubandaris@hotmail.com | Contact No. : 9491821252 | |
| Member on | LIFE MEMBER OF IAPT | | |
| Academic Council for evaluation: | Chief examiner | | |
| Residential Address: | Pasra., Mandal: Govindarao Pet., Dist: Mulug - 506347 | | |

| | | |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------|
| Name in Full | : Dr. KETHIREDDY NARENDAR |  |
| Designation | : ASSISTANT PROFESSOR OF PHYSICS | |
| Father's name | : K SRINIVAS REDDY | |
| Mother's name | : K ANASUYA | |
| Date of Birth | : 05.04.1974 | |
| Qualifications | : M.Sc., B.Ed, Ph.D. | |
| Teaching Experience | : 4 years | |
| Published: Single/ Joint | : 18 | |
| Abstracts in Conf/Seminar Proceedings Published : 03 | | |
| Presented : National / International : 04 | | |
| Training Programmes Attended : RC – 1 at KU., INDUCTION TRAINING PROGRAM AT NIT WARANGAL | | |
| Confidential Services to Govt. Bodies : Paper Setting | | |
| E-mail : <i>kethireddynaren@gmail.com</i> | Contact No. : 9393662344 | |
| Academic Council for evaluation: Chief examiner | | |
| Residential Address: HNO. 1-8-477/1, FLAT NO.501A, SRI SAI PRAKASH APPARTMENTS, BALASAMUDRAM, HANAMKONDA | | |

| | | |
|---------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------|
| Name in Full | : SURASI KIRAN |  |
| Designation | : ASSISTANT PROFESSOR OF PHYSICS | |
| Father's name | : SARAIAH | |
| Mother's name | : YASHODA | |
| Date of Birth | : 25.10.1980 | |
| Qualifications | : M.Sc. (PHYSICS), SET | |
| Teaching Experience | : I years | |
| Research Papers Published: Single: 01 | | |
| E-mail : <i>surasi.kiran@gmail.com</i> | Contact No. : 9849135431 | |
| Residential Address: H.No.3- 7- 195/1, Gudibandal, Hanamkonda, WGL (U), 506001 | | |

Details of e –content

| S. No | Name of the Lecturer | PPT | Lectures uploaded on YouTube |
|-------|---------------------------|-----|------------------------------|
| 1 | M. Masood Ahmed Mahamoodi | 15 | 05 |
| 2 | B. Raju | 25 | 26 |
| 3 | B. Sreenivas | 21 | 25 |
| 4 | Dr. K. Narendar | 25 | 09 |
| 5 | B.Satyanarayana | 21 | 05 |

MANA TV – LIVE LECTURES BY B.SATYANARAYANA





← B_Satyanarayana-MANA_TV... 628 KB

**ట్రాన్సిస్టర్ విన్యాసాలు –
ట్రాన్సిస్టర్ వర్ధకం**

ఈ రోజు పాఠంలో మనం ఈ క్రింది అంశాలు
నేర్చుకొంటాము.

1. ట్రాన్సిస్టర్ అంటే ఏమిటి ? అవి ఎన్ని
రకాలు ?
2. ట్రాన్సిస్టర్ నిర్మాణం - పనిచేయు విధానం
3. ట్రాన్సిస్టర్ లో వివిధ విద్యుత్ ప్రవాహ
అంశాలు

 Commissionerate of Collegiate Education, Telangana 

| S. No. | Topic | Telecast on (Date) |
|--------|-----------------------------------------|--------------------|
| 1 | Transistor- Configurations - Amplifiers | 06.01.2015 |
| 2 | Raman Effect | 28.01.2015 |

CERTIFICATE COURSES:

| Year -1 (2016-17) | | | | | | |
|-----------------------------------------------------------------------|----------------------|-----------------------------------|-------------------------------------------|--------------------|-----------------------------------------|------------------------------------------------------|
| Name of Add on /Certificate programs offered | Course Code (if any) | Year of offering | No. of times offered during the same year | Duration of course | Number of students enrolled in the year | Number of Students completing the course in the year |
| Certificate course in Fundamentals in Electric House Wiring | PHY -EHW | 2017 07.04.2017 | 1 | 3 weeks | 66 | 66 |
| Year 2 (2017-18) | | | | | | |
| Name of Add on /Certificate programs offered | Course Code (if any) | Year of offering | No. of times offered during the same year | Duration of course | Number of students enrolled in the year | Number of Students completing the course in the year |
| Certificate Course in preparation of electric and electronic circuits | PHY-CKTS | 2017 | 1 | 3 weeks | 72 | 72 |
| Year 3 (2018-19) | | | | | | |
| Name of Add on /Certificate programs offered | Course Code (if any) | Year of offering | No. of times offered during the same year | Duration of course | Number of students enrolled in the year | Number of Students completing the course in the year |
| CERTIFICATE COURSE in Problem solving Techniques | PHY-PST | 2019 | 1 | 30 days | 74 | 74 |
| Year 4 (2019-20) | | | | | | |
| Name of Add on /Certificate programs offered | Course Code (if any) | Year of offering Date of Start | No. of times offered during the same year | Duration of course | Number of students enrolled in the year | Number of Students completing the course in the year |
| Certificate course in Basic Experimental techniques in Physics | PHY-BET | 2019 05.08.2019 | 1 | 30 days | 120 | 120 |
| Certificate course on Domestic Electric appliances | PHY- DEA | 2019 11.10.2019 | 1 | 30 days | 110 | 110 |
| Recent Developments in Nanotechnology | PHY-NANO | 2019 12.09.2019 | 1 | 30 days | 164 | 164 |
| Awareness on renewable energy sources | PHY-RES | 2020 28.01.2020 | 1 | 30 days | 172 | 172 |

| Year 5(2020-21) | | | | | | |
|----------------------------------------------|----------------------|------------------------------------|-------------------------------------------|--------------------|-----------------------------------------|------------------------------------------------------|
| Name of Add on /Certificate programs offered | Course Code (if any) | Year of offering | No. of times offered during the same year | Duration of course | Number of students enrolled in the year | Number of Students completing the course in the year |
| Fundamentals of Nanotechnology | NAT | 2021 01.11.2021 - 09.12.2021 | 1 | 30 days | 100 | 100 |



Certificate Course in Yoga

Kakatiya Govt College Hanamkonda
Certificate Courses on YOGA

The kakatiya Govt College is going to conduct a certificate course on YOGA as per the guidance of the CCE, Hyderabad.

The Principal has constituted a Committee with the following members.

- 1) Chairman :- Sri. K. Satyanarayana
Principal K.G.C.
- 2) Convener :- Sri T. Jeevan Kumar
Lect. In. Physics
- 3) Co-convener :- Sri. K. madhusudhan
Physical director.
- 4) Members
 - i) Sri. P. Laxmi Narayana murtly,
Lect. in. Commerce.
 - ii) Sri. B. muralidhar,
Lect. in ~~History~~ Public Admin.
 - iii) Sri. A. Srinivasa reddy,
Lect. In. Chemistry
 - iv) Dr. D.V. Laxmi satya vathi,
Lect in. Botany
 - v) Sri. A. Brahmaiah,
office Superintendent

The above said committee to be assemble on 30-11-2015 at the Principal chamber at 12.30 PM

Dt. 30.11.2015

The YOGA committee assembled in the principal chamber under the chairmanship of principal at 12.30 pm and resolved the following decisions.

- 1) Awareness programme ^{to be conducted} for certificate course in Yoga to the students at 12.30 pm in Room no. 48. 2.12.2015
- 2) Selection can be made at the end of the programme.
- 3) Yoga programme conducted daily from 3.30 pm to 5.30 pm in the college premises.
- 4) Yoga programme conducted for 60 hrs as per CCE orders.
- 5) Registration fee Rs 100/- collected from students for certificate course in Yoga.
- 6) Above resolutions are made as per CCE guidelines.

committee

- 1) convener → Sri T. Jeevan Kumar
- 2) Co-convener Sri. K. Madhusudhan
- 3) Sri P. Laxmi murtly
- 4) Sri B. Muralidhar
- 5) Sri A. Srinivasa reddy
- 6) Dr. D.V. Laxmi satya vathi
- 7) Sri A. Brahmaiah

Principal
Chairman
30/11/15



**SEMINARS / CONFERENCES / WORKSHOPS / GUEST TALKS ORGANIZED BY
THE DEPT:**

| Sl.No | Year | Name of the workshop/ seminar | Number of Participants | Date From - To |
|----------------|---------|-----------------------------------------------------------------------------|---------------------------|-------------------|
| 2019-20 | | | | |
| 1 | 2019-20 | A seminar on Basics of Integration Technology | 120 | 24.10.2019 |
| 2 | 2019-20 | A seminar on Special Theory of Relativity - Dr.B.V.A.Rao | 129 | 11.11.2019 |
| 3 | 2019-20 | A seminar on Superconductivity and its Applications - Ch. Sreedhar | 145 | 19.02.2020 |
| 2018-19 | | | | |
| 4 | 2018-19 | A seminar on Central forces - P.Thyagaiah | 74 | 09. 07.2018 |
| 5 | 2018-19 | A Seminar on Raman Effect and its Applications - Prof.V.R.K.Murthy | 48 | 05. 11.2018 |
| 6 | 2018-19 | One day workshop for students on preparation of low cost equipments | 50 | 06.08.2018 |
| 7 | 2018-19 | A seminar on Comprehension of Physics- Dr.M.Shankarnarayana | 99 | 05.10.2018 |
| 2017-18 | | | | |
| 8 | 2017-18 | Seminar on Quantum Mechanics - Dr.V.R.K.Prasad | 47 | 30. 11.2017 |
| 9 | 2017-18 | Seminar on Semiconductors - Dr.P.Bala Bhaskar, Principal,GDC Cheriyal | 42 | 31.07.2017 |
| 10 | 2017-18 | one Day Workshop on Experiments in Physics - Sponsored by IAPT | 77 | 09.04.2018 |
| 11 | 2017-18 | Seminar on Cathode Ray Oscilloscope - Dr.B.Venkataram Reddy | 133 | 19.04.2018 |

| | | | | |
|----------------|---------|-----------------------------------------------------------------------------------------------------------------------------|-----|------------|
| 12 | 2017-18 | Workshop for Physical Science s Teachers | 109 | 15.12.2017 |
| 2016-17 | | | | |
| 13 | 2016-17 | Career Guidance and Counselling- Dr. Veeraswamy, Public Relations officer, University arts & Science College, Hanamkonda | 65 | 31.01.2017 |
| 14 | 2016-17 | Seminar on Dielectrics and its Applications - Dr.Y.RangaReddy | 95 | 15.12.2016 |
| 15 | 2016-17 | Seminar on Nuclear forces - Dr.M.Venkataramana | 81 | 30.11.2016 |
| 16 | 2016-17 | One day workshop on conceptual clarity over certain Physical Phenomenon | 73 | 16.12.2016 |
| 17 | 2016-17 | Seminar Molecular Spectroscopy - Prof.S.Sreehari | 36 | 31.03.2017 |
| 18 | 2016-17 | Seminar on " Keplers laws and Planetary motion" - N.Sreenivasa Rao, Asst. Prof.of Physics GDC Sathupalli | 57 | 23.01.2017 |



Workshop for physical sciences teachers



Dr. Venkataramana of BARC Vizag addressing on the occasion of Symposium



Students' Projects:

| Project name | Program Code | List of students undertaking project work/field work/internship |
|--------------------------------------------------------|--------------|-----------------------------------------------------------------|
| 2016-17 | | |
| Production of Cureent through Potatos | 4 | A.SANTHOSH - B.Sc(MPCs) - Iyr. |
| | | B.SARITHA - B.Sc(MPCs) - Iyr. |
| | | B.RADHIKA - B.Sc(MPCs) - Iyr. |
| | | E.SRAVANI - B.Sc(MPCs) - Iyr. |
| | | G.PRUDHVI RAJ - B.Sc(MPCs) - Iyr. |
| Law of conservation of angular momentum | 4 | A.MAHESH - B.Sc(MPC)-I Yr |
| | | B.VAMSHI- B.Sc(MPC)-I Yr |
| | | CH.RAJU- B.Sc(MPC)-I Yr |
| | | D.HAREESH- B.Sc(MPC)-I Yr |
| | | D.KISHORE- B.Sc(MPC)-I Yr |
| | | J.RAJENDER- B.Sc(MPC)-I Yr |
| 2017-18 | | |
| Numerical Aperture Plastic optical fibre | 4 | A. Sharath - MPC -II-Yr |
| | | D.Rakesh - MPCs - II Yr |
| | | M.Pranitha - MPC -III -E/M |
| | | M.Naveen - MPC-III- T/M |
| | | M.Laxmiraju - MPC- III-E/M |
| | | J.Niharika - MPC-III -E/M |
| | | M.Shivani - MPC-III- E/M |
| 2018-19 | | |
| Determination of Acceleration due to gravity by | 4 | R.Shravani -MPCs- I - Yr. |

| | | |
|------------------------------------------------------------------------------------------------------------|---|--------------------------------|
| Simple pendulum, Compound Pendulum and torsional pendulum - A comparative study and study of errors | | O.Sandhya - MPCs- I - Yr. |
| | | P.Sruthi- MPCs- I - Yr. |
| | | P.Kasthuri - MPCs- I - Yr. |
| | | Shaik.Amreen - MPCs- I - Yr. |
| | | V.Vineeth - MPCs- I - Yr. |
| | | V.Harish - MPCs- I - Yr. |
| | | E.Rakesh - MPCs- I - Yr. |
| Study of Surface Tension of some liquids - A Comparative Study | 4 | G.Anil - MPCs - I- Yr |
| | | G.Naresh - MPCS - I - Yr. |
| | | Ch,Sushmitha - MPCs - I Yr |
| | | D.Sandeep Kumar - MPCs - I- Yr |
| | | I.Bhaskar - MPCs - I- Yr |
| | | G.Yaku - MPCs - I- Yr |
| | | K.Mounika - MPCs - I- Yr |
| | | G.Vinod - MPCs - I- Yr |
| G.Prathyusha - MPCs - I- Yr | | |
| Synthesis and Characterization of silver Nanoparticles from Feronia elephantum leaf extract | 4 | D.Rakesh - MPCs - IIIYr |
| | | A.Santhosh - MPCs - IIIYr |
| | | A.Dinesh - MPCs - IIIYr |
| | | G.Prashanth - MPCs - IIIYr |
| | | G.Sandeep - MPCs - IIIYr |
| | | N.Ramesh - MPCs - IIIYr |
| | | R.Shiva Kumar-MPCs - IIIYr |
| Estimation of Errors - Relative Density | 4 | B.Vijaya Laxmi - MPCs-I Yr. |
| | | B.Kavitha - MPCs-I Yr. |
| | | B.Yamuna - MPCs-I Yr. |
| | | B.Suma - MPCs-I Yr. |
| | | Ch.Vinay - MPCs-I Yr. |

D.Arun Prasad - MPCs-I Yr.

D.Triveni - MPCs-I Yr.

2019-20

| | | |
|----------------------------------------------------------------------------------|---|----------------------------------|
| Determination of Refractive index of various liquids using Newton's Rings | 4 | A.Meghana-MPCs-II-Yr |
| | | B.Venkatesh - MPCs- II - Yr. |
| | | Ch.Ruchitha Reddy MPCs- II - Yr. |
| | | Ch.Pavan - MPCs- II - Yr. |
| | | D.PurnimaMPCs- II - Yr. |
| | | G.Vasavi MPCs- II - Yr. |
| | | J.PavanMPCs- II - Yr. |
| | | K.NarendraMPCs- II - Yr. |
| | | M.Usha Rani MPCs- II - Yr. |
| | | M.Kiranmayi MPCs- II - Yr. |
| | | P.Shiva Krishna MPCs- II - Yr. |
| | | Ch.Ramu- MPCs- II - Yr. |
| A study of effect of temperature on Viscosity of various liquids | 4 | Ch.Manaswitha - MPC- I - Yr. |
| | | P.Deepika - MPC- I - Yr. |
| | | B.Rajesh- MPC- I - Yr. |
| | | A.Arun Kumar - MPC- I - Yr. |
| | | Ch.Omkar- MPC- I - Yr. |
| | | D.Shivaji- MPC- I - Yr. |
| | | M.Sindhuja- MPC- I - Yr. |
| | | A.Arun - MPC- I - Yr. |
| | | G.Hanuman - MPC- I - Yr. |
| P.Venkatesh - MPC- I - Yr. | | |
| Cauchy's Constants | 4 | A.Meghana-MPCs-II-Yr |
| | | B.Rajkumar- MPCs-II-Yr |

| | | |
|----------------------------------------------------------------------------------------------------|---------------------------|-----------------------------|
| | | Ch.Pavan - MPCs- II - Yr. |
| | | G.Chandu -MPCs-II-Yr |
| | | G.Sandeep - MPCs - IYr |
| | | K.Ugender -MPCs-II-Yr |
| | | M.Usha Rani -MPCs- II - Yr. |
| | | Ch.Ramu- MPCs- II - Yr. |
| | | Ch.Anand- MPCs-II-Yr |
| | | G.Vasavi -MPCs- II - Yr. |
| | | M.Sampath-MPCs-II-Yr |
| | | P.Arun-MPCs-II-Yr |
| Determiration of Thickness of human hair by wedge method | | P.Karthik-MPCs-II-Yr |
| | | S.Umesh-MPCs-II-Yr |
| | | R.Srija-MPCs-II-Yr |
| | | G.naveen- MPCs- II - Yr. |
| | | J.Anitha-MPCs-II-Yr |
| | | J.Praveen-MPCs- II - Yr. |
| | | V.Srikanth-MPCs-II-Yr |
| | | N.Ramesh - MPCs - IYr |
| | | K.Rajender-MPCs-II-Yr |
| | | D.PurnimaMPCs- II - Yr. |
| | | S.Bhargav Raj-MPCs-II-Yr |
| | | V.uday kiran-MPCs-II-Yr |
| | | V.Venkata Rajesh-MPCs-II-Yr |
| | M.Arshad Pasha-MPCs-II-Yr | |
| Determiration of acceleration due to gravity with different pendulums- a comaparative study | 4 | A.Rohith-MPCs-I-Yr |
| | | A.Shiva smitha-MPCs-I-Yr |
| | | B.Jeevan babu-MPCs-I-Yr |
| | | Ch.manasa-MPCs-I-Yr |

| | | |
|---------------------------------------------------------------------------------------|--|-------------------------------|
| | | B.Deepika-MPCs-I-Yr |
| | | E.Ashok-MPCs-I-Yr |
| | | G.Sandeep-MPCs-I-Yr |
| | | K.Kishore kumar-MPCs-I-Yr |
| | | K.Bharath chandra-MPCs-I-Yr |
| | | K.Soujanya-MPCs-I-Yr |
| | | M.Pravalika-MPCs-I-Yr |
| | | N.Rakesh-MPCs-I-Yr |
| | | S.Nithish Kumar-MPCs-I-Yr |
| | | V.Akhil-MPCs-I-Yr |
| | | J.Rajesh-MPCs-I-Yr |
| A study on specific rotation of different solvents using polarimeter | | B.Maneesha-MPC-II-Yr |
| | | B.rajashekar-MPC-II-Yr |
| | | P.Shiva Krishna -MPC-II-Yr |
| | | R.Durga Prasad-MPC-II-Yr |
| | | P.Saibabu-MPC-II-Yr |
| | | P.Pranay kumar-MPC-II-Yr |
| | | N.Mahesh-MPC-II-Yr |
| | | M.Sageera baig-MPC-II-Yr |
| | | M.Sallauddin-MPC-II-Yr |
| | | K.Narender-MPC-II-Yr |
| | | J.Praveen-MPCs- II - Yr. |
| | | Ch.Rammohan Sandeep-MPC-II-Yr |
| Determination of surface tension of different liquids by capillary rise method | | A.Vinod kumar -MPC-I-Yr |
| | | B.Deepika-MPCs-I-Yr |
| | | Ch.Omkar- MPC- I - Yr. |
| | | D.Rajesh-MPC-I-Yr |
| | | D.Shivaji-MPC-I-Yr |

| | | |
|-----------------------------------------------------------------------|---|--------------------------|
| | | G.Deepika-MPC-I-Yr |
| | | G.Sandeep-MPC-I-Yr |
| | | G.Naveen- MPCs- I - Yr. |
| | | K.Pavan-MPC-I-Yr |
| | | M.Ashok-MPC-I-Yr |
| | | N.Anusha-MPC-I-Yr |
| | | N.Rakesh-MPCs-I-Yr |
| Statistical error analysis for differnet Physical measurements | 4 | K.Rajinikanth- MPC-I Yr. |
| | | J.Rajesh - MPC-I Yr. |
| | | V.Akhil - MPC-I Yr. |
| | | V.Bhargavi - MPC-I Yr. |
| | | T.Kalyan - MPC-I Yr. |
| | | Sk.adar- MPC-I Yr. |
| | | P.Deepika - MPC-I Yr. |
| | | P.Mahender - MPC-I Yr. |
| | | P.Shekhar - MPC-I Yr. |
| | | K.Ajay - MPC-I Yr. |
| K.Chander - MPC-I Yr. | | |

Academic Council Evaluation Services by Faculty:

| S.No. | Name of the Lecturer | Paper Setting | Resource Person | Examiner |
|-------|---------------------------|-----------------------------|-----------------|----------|
| 1 | A. Sanjeeva Reddy | Paper setting | - | - |
| 2 | Dr. K. Narendar | Paper setting | - | - |
| 3 | Md. Yousuf Hussain Ansari | Paper setting | Resource person | Examiner |
| 4 | B. Raju | Paper setting | | Examiner |
| 5 | M. Masood Ahmed Mahamoodi | Paper setting Translator | | |
| 6 | B.Sreenivas | Paper setting | | |

Details of Publications: (State/National/International):

| S. No. | Name of the Faculty | Research Papers & Books | Books Authored |
|--------|---------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Md. Yousuf Hussain Ansari | Research papers | |
| 2 | B. Raju | | Electromagnetism for B.Sc third year V Sem (T/M and E/M) by Telugu academy Hyd. EAMCET- Physics Vol-I &II (T/M) – Published by Telugu Akademi, Hyd. |
| 3. | Dr.K.Narender | Published 18 research papers | |
| 4. | M. Masood Ahmed Mahamoodi | One research paper | |

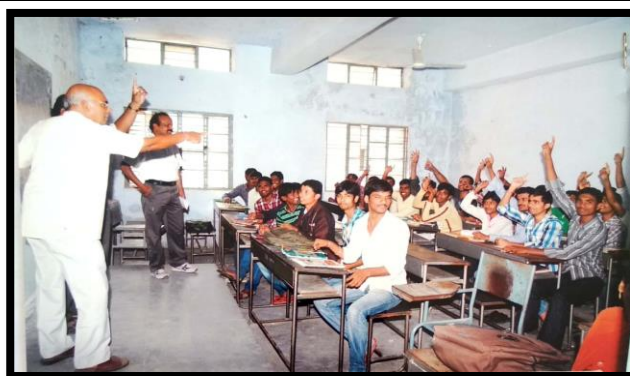
Faculty as Members on Academic Bodies at Autonomous/University/Workshops:

| | |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------|
| M. Masood Ahmed Mahamoodi | 1.Department of Physics, Kakatiya University Warangal 2.Government Degree College (Autonomous) Siddipet, Dist: Siddipet |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------|

STUDENT CENTRIC ACTIVITIES:

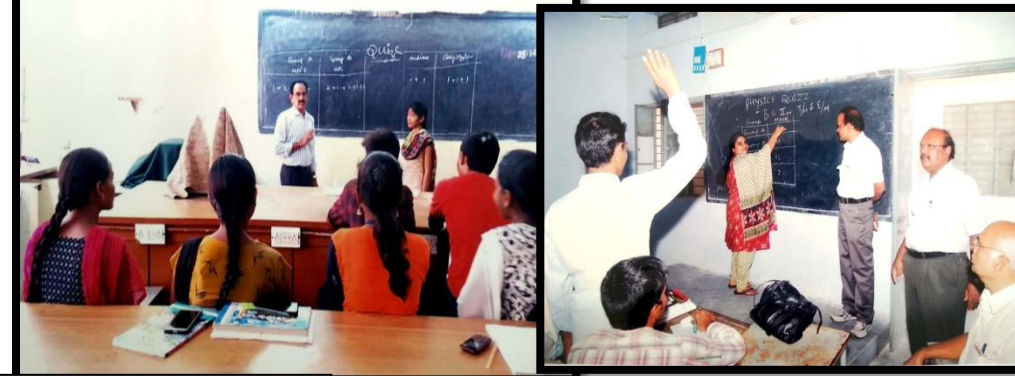
Seminars / Workshops organized involving Students:

| S. No | Name of the Student | Class | Topic |
|-------|--------------------------------|------------------|-------------------------------------|
| 1 | M. Nagajyothi | MPC - II -TM | Interference |
| 2 | N. Anusha | MPC - II - TM | Newton's Rings |
| 3 | A. Sampath | MPC-II- TM | Nicol Prism |
| 4 | M. Swarnalatha B. Srikanth | II year TM | Thermodynamic Potential |
| 5 | Ch. Mounika | I Year TM | Renewable and Non-Renewable Sources |
| 6 | K. Shyamala | III year MPC EM | Photo Electric Effect |
| 7 | M. Srikar | III year MPC EM | De-Broglie Theory of Matter Waves |
| 8 | P. Srikanth | III year MPCs EM | Rotational Energies and Spectrum |
| 9 | A. Sravanthi | III year MPC EM | Crystal Structure |
| 10 | Ch. Prashanth | III year MPCs EM | Potential Barrier |
| 11 | Ch. Mounika P. Dinakar | III year MPC EM | Raman Effect & Electro Magnetics |
| 12 | K. Nirosha | III year MPCs TM | Hysteresis and B.H. Curve |
| 13 | G. Vamshikrisha A. Shirisha | III MPC EM | Anti-Ferro Magnetism |
| 14 | E. Arun Kumar | II MPCs EM | Newton Rings |
| 15 | A. Sravanthi K. Laxmi | II MPCs EM | Carnot Cycle & Nicol Prism |



STUDENT SEMINARS





QUIZ PROGRAMMES





SCIENCE DAY CELEBRATIONS

QUIZ PROGRAMME

26.02.2019



EXTENSION LECTURES



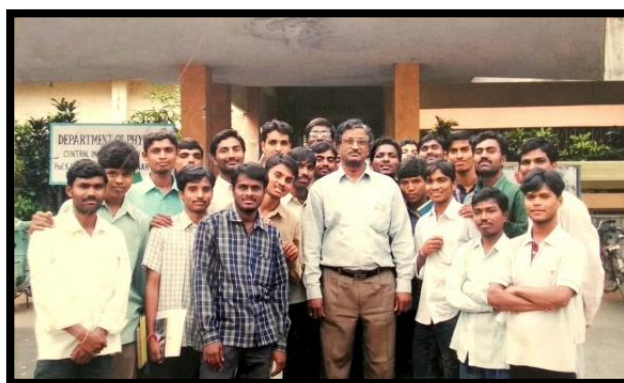
An extension lecture by Dr.M.Shankarnarayana on
"COMPREHENSIVE PHYSICS" ON 5th OCTOBER 2018



Field Trips/Industry Tours organized for Students:

| S. No. | Place of Visit | Date of Visit | Strength |
|--------|--------------------------------------------------------------|---------------|----------|
| 1 | Department of Physics Central Instrumentation Centre, KU WGL | 14-12-2013 | 25 |
| 2 | Department of Physics Central Instrumentation Centre, KU WGL | 02-12-2014 | 20 |
| 3 | Department of Physics Central Instrumentation Centre, KU WGL | 07-01-2016 | 15 |
| 4 | Industrial Training Centre | 27-04-2017 | 45 |
| 5 | Industrial Training Centre | 07-12-2017 | 41 |

Field trip to Department of Physics, KAKATIYA UNIVERSITY, WARANGAL



Field trip to CENTRAL INSTRUMENTATION CENTRE, KAKATIYA UNIVERSITY, WARANGAL



Field trip to ELECTRIC CONTROL BOARD, WARANGAL



Remedial Classes for students with, Minutes, Attendance Registers and other Documents:

Remedial classes were conducted

Remedial classes are conducted after identifying slow learners and for those who fail to do well at Exams.

STUDENTS PARTICIPATION IN INTER-COLLEGIATE COMPOSITIONS (JIGNASA):

| S. No. | Jignasa | Year | Topic | Participated students |
|--------|---------|---------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Jignasa | 2016-17 | A study on electromagnetic principles | 1.M.Upender Reddy 2.T.naga Lakshmi 3.S.Usha Sree 4.P.Anjali 5.B.Anusha |
| 2 | Jignasa | 2017-18 | A Study of Waste Electrical And Electronic Equipment (WEEP) Disposal And Management | 1.Ch.Raju 2.N.Navya 3.B.Bharath 4.K.Ankith 5.A.Santhosh |
| 3 | Jignasa | 2018-19 | Synthesis and Characterization of Silver Nanoparticles from Feronia elephantum leaf extract | 1. D.Rakesh 2. A.Santhosh 3. A.Dinesh 4. G.Prashanth 5. G.Sandeep 6. N.Ramesh |
| 4 | Jignana | 2020-21 | Energy Audit – KGC A Case Study | 1.N.Adarsh, B.Sc(MPCs)III- Yr. 2.B.ManiDeepak,B.Sc(MPCs)III - Yr. 3.D.Shivaji,B.SC(MPC)III–Yr. 4.K.Akhila,B.SC(MPCs)I - Yr. 5.Ch.Lokesh Reddy, B.Sc (MPCs) - IIYr. 6.E.Sandhya B.SC(MPCs) – II Yr. |

E-FACILITIES / e-Content available:**Name of the faculty: Raju Bandari**

| S.No | Topic | You tube Link |
|------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 1 | Vector Analysis- Vector and Scalar Fields-Derivation of Del Operator and Laplacian | https://youtu.be/WWstluNhYqk |
| 2 | Gradient of Scalar Field and numericals on Gradient | https://youtu.be/qdtRWpkDMsl |
| 3 | Divergence of a Vector Field and Numericals | https://youtu.be/9H5bHSASHsA |
| 4 | Curl of a Vector Field and Physical Significance | https://youtu.be/h_aryeWyQoo |
| 5 | Vector Integration-Line, Surface and Volume integration | https://youtu.be/7Nnkd-RacmQ |
| 6 | Gauss's Divergence Theorem | https://youtu.be/fr1PpJe2eDs |
| 7 | Stoke's Theorem | https://youtu.be/oc_wmVHLaog |
| 8 | Green's Theorem | https://youtu.be/5U_i1mUO8Ho |
| 9 | Numericals on Vector Analysis | https://youtu.be/xOn2C6OxmPc |
| 10 | Numericals on Vector Analysis | https://youtu.be/NaYP5IRK2iE |
| 11 | Special Theory of Relativity- Galilean Transformations | https://youtu.be/yhkr4-xch1c |
| 12 | Michelson - Morley experiment | https://youtu.be/6pKgtSlnKnc |
| 13 | Postulates of Special Theory of Relativity and Lorentz Transformations | https://youtu.be/_7f1Snve59o |
| 14 | Length Contraction and time dilation | https://youtu.be/Xuxg07CQ_jM |
| 15 | Variation of mass with velocity and Einstein's mass - energy equivalence relation | https://youtu.be/y82pxxEWX74 |
| 16 | Four vector formalism | https://youtu.be/FhIYBa0uu80 |
| 17 | Numerical problems - 1 on Special theory of relativity | https://youtu.be/jebfT5pgY-w |
| 18 | Numerical Problems- 2 on Special theory of relativity | https://youtu.be/YOG0gNo1Lak |
| 19 | Central forces 1 | https://youtu.be/AAdhffR74E |
| 20 | Central forces 2 | https://youtu.be/pU1BICHxDds |
| 21 | Central forces 3-Acceleration of a particle in polar coordinates | https://youtu.be/RfHXmboYlWs |
| 22 | Lecture- 4 Equation of motion of a particle under influence of Central forces | https://youtu.be/KhiOEyj6Myl |
| 23 | Lecture-5 Central Forces- Gravitational field Intensity, Gravitational Potential and Kepler Laws | https://youtu.be/woCN4MwKCCA |
| 24 | Derivation of Kepler's first Law | https://youtu.be/OWLYf1vobyQ |
| 25 | Kepler's 2nd & 3rd Law | https://youtu.be/MosTPPqWlZc |
| 26 | Central forces - 8 | https://youtu.be/5gWywT0yWQQ |
| 27 | Lecture-9-Numericals on Vector Analysis | https://youtu.be/xOn2C6OxmPc |

Name of the faculty: Sreenivas Boorgu

| S.No | Topic | You tube Link |
|------|----------------------------------------------|-------------------------------------------------------------------------|
| 1 | Newton's Laws of Motion | https://youtu.be/AoVRak36P54 |
| 2 | System of Variable Mass | https://youtu.be/-FURnQldzYs |
| 3 | Conservation of Mechanical Energy | https://youtu.be/Mzl-W6EGnds |
| 4 | Conservation of Momentum | https://youtu.be/6NHYkNCegXI |
| 5 | Collisions | https://youtu.be/TdonoVwFzz0 |
| 6 | Elastic Collision in Two Dimensions | https://youtu.be/sTXvL3u8FYQ |
| 7 | Collisions in Two and Three Dimensions | https://youtu.be/SUsuGm1o7ms |
| 8 | Problems in Mechanics of Particles | https://youtu.be/Ndxol14SZt0 |
| 9 | Mechanics of Rigid bodies | https://youtu.be/ZSEvmk47xOk |
| 10 | Mechanics of Rigid bodies | https://youtu.be/-S8a1jUFIT0 |
| 11 | Equation of motion of a rotating rigid body | https://youtu.be/iFZzRzfVPrY |
| 12 | Combined Translational and Rotational motion | https://youtu.be/kYyUCohTW5Q |
| 13 | Angular momentum and Inertia tensor | https://youtu.be/IRZc6AeFDls |
| 14 | Euler equations | https://youtu.be/hqurIGLcaKc |
| 15 | Symmetric top | https://youtu.be/0ANARig9LHg |
| 16 | Gyroscope | https://youtu.be/0IxGDyE7ftw |
| 17 | Precession of Equinoxes | https://youtu.be/O7q7kse6Ybw |
| 18 | Moment of inertia | https://youtu.be/-HCYRTHWgmE |
| 19 | Solid State physics | https://youtu.be/IYe4gFx_NMo |
| 20 | Crystal symmetry | https://youtu.be/b1eIOiaqMx8 |
| 21 | Miller Indices | https://youtu.be/3V9rFBTxkxk |
| 22 | Atomic packing fraction | https://youtu.be/TicMSADLFvQ |
| 23 | X-ray diffraction and Bragg's law | https://youtu.be/dy0LdOosPII |
| 24 | Reciprocal lattice | https://youtu.be/wKEoHoX9NDc |
| 25 | Numerical problems on Crystal structure | https://youtu.be/dVGqe9mcuGU |

Name of the faculty: Dr.K.Narender

| S.No | Topic | You tube /Gogle Drive Link |
|------|-----------------------------------------------------------------|-------------------------------------------------------------------------|
| 1 | Introduction to Electrostatics | https://youtu.be/7i6sXelltXs |
| 2 | Problems on Coulomb's law | https://youtu.be/K6fQ4yNGn-Y |
| 3 | Gauss's law, Integral form | https://youtu.be/jwVZNIJlhqw |
| 4 | Gauss's law differential form and application | https://youtu.be/Gc9KDmiH5Gc |
| 5 | Gauss's law applications | https://youtu.be/_AqN1QRiftI |
| 6 | Gauss's law applications | https://youtu.be/Tv9G_EJ5i9M |
| 7 | Electric potential | https://youtu.be/_li4TtFHpx8 |
| 8 | Electric potential and relations, potential due to point charge | https://youtu.be/6nwBJg5ZCf0 |
| 9 | Potential due to Charged Spherical Conductor and energy density | https://youtu.be/VyBMfQ-fKyE |

Best Practices of the Department:

- **Problem-Based Learning**- Introduction of problem solving assessment to the UG students to have comprehensive understanding of Physics.
- **Intensive coaching** for JAM and PG entrance of reputed institutions of national level.
- **Study material:** The department is providing the study materials to the students.
- The department encourages the M.Sc students to pursue research.

Bench Mark of the Department (Greatest Recognition Activity of the Department)

- Mr.A.Santhosh has qualified IIT JAM -2019,
- Kumari K.Ramya has secured 20th rank in CSIR JRF/LS

Future Plans and Intention of the Department:

- Establish of research facilities.
- Strengthen the alumni activities.
- Start B.Sc Electronics course .

Other Responsibilities of the Department:

| S. No. | Name of the Lecturer | Additional Responsibility | Convener/ Member |
|--------|---------------------------|---------------------------|------------------|
| 1 | M. Masood Ahmed Mahamoodi | Audio Visual Committee | Convener |
| 2 | B. Raju | IQAC / NAAC /AV Education | Member |
| 3 | B. Sreenivas | Eco Club / AV Education | Member |
| 4 | Dr. K. Narendar | IQAC | Member |

Departmental Library:

The departmental library has nearly 200 books.

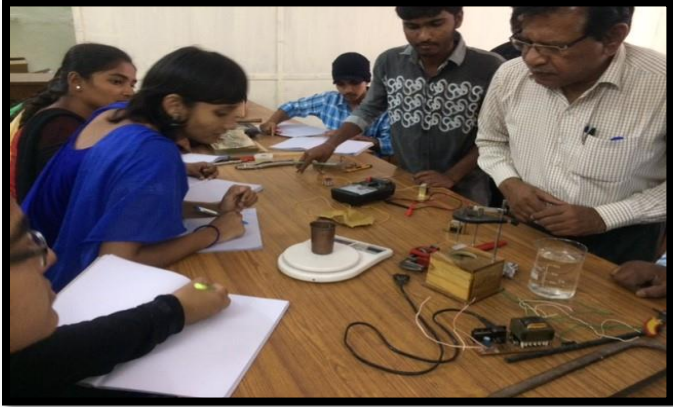
Nearly 150 books are available in e-library:



List of Mentors the classes concerned working in the Department and the record of counseling held with the mentees and action taken report (mentor wise):

| S.No. | Name of the Mentor | Group | No. of Students |
|-------|--------------------------|-------------|-----------------|
| 1 | Dr. K.Narendar | III MPCs EM | |
| 2 | B.Sreenivas | III MPCs TM | |
| 3 | M.Masood Ahmed Mahamoodi | II MPC EM | |
| 4 | B.Raju | I MPCs | |
| 5 | S.Kiran | | |

Development of low cost Physics instruments by students





KAKATIYA GOVERNMENT COLLEGE, HANUMAKONDA.

DIST: HANUMAKONDA. TELANGANA STATE – 506001

(Affiliated to Kakatiya University, Warangal)

(e-mail: warangal.jkc@gmail.com, website: <https://gdcts.cgg.gov.in/hanamkonda.edu>)



DEPARTMENT OF PHYSICS

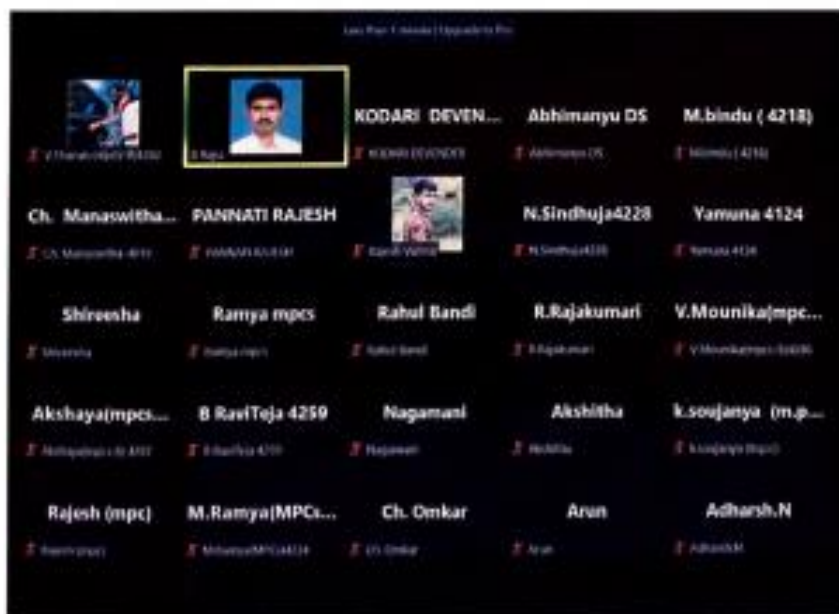
Brief report on WEBINAR on *"Maxwell's equations –A Mathematical Approach"*.

Resource Person: D.Venkanna., Asst.Prof of Mathematics, Date: 15.06.2021

With a motto of inducing interest in Physics subject, Department of Physics organized a webinar on 15.06.2021 through ZOOM entitled *"Maxwell's equations –A Mathematical Approach"*.

Mr.D.Venkanna, Asst. Professor of Mathematics, was the resource person. Around 45 students of B.Sc - final year participated in the programme. The speaker beautifully explained the Maxwell's equations and its applications with the help of animations and other ICT tools in the context of Mathematical approach.

Students were all praise for the simple, smooth and lucid approach of the concept of Maxwell's equations and its applications. At the end of the programme, the doubts raised by the participants were clarified by the speaker.



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KAKATIYA GOVT. COLLEGE
Hanamakonda.



DEPARTMENT OF PHYSICS

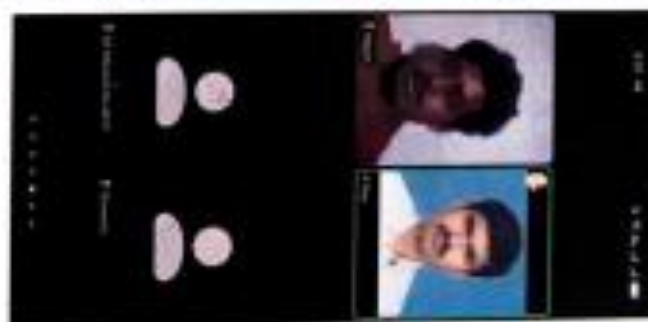
Brief report on WEBINAR on "Mathematical Physics with a focus on Vector Analysis"
Resource Person: Dr.B.Prabhakar, Asst.Prof of Mathematics, Date: 05.07.2021

With a motto of inducing interest in Physics subject, Department of Physics organized a webinar on 05.07.2021 through ZOOM entitled "Mathematical Physics with a focus on Vector Analysis".

Dr.B.Prabhakar Asst. Professor of Mathematics was the resource person. Around 52 students of B.Sc - Second year participated in the programme. The speaker explained in a lucid manner the concept of vectors and its applications in Physics with appropriate mathematical models.

Students benefitted a lot from the easy approach explanation by the speaker.

At the end of the programme, the students were given a chance to get their doubts clarified by the speaker.



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KAKATIYA GOVT. COLLEGE
 Hanumakonda.



KAKATIYA GOVERNMENT COLLEGE, HANUMAKONDA.
DIST: HANUMAKONDA. TELANGANA STATE – 506001



(Affiliated to Kakatiya University, Warangal)
 (e-mail: warangal.jkc@gmail.com, website: https://gdets.egg.gov.in/hanamkonda.edu)

DEPARTMENT OF PHYSICS

Brief report on WEBINAR on "Crystal Systems – Bravais Lattices"

Resource Person: Dr.B.Ramesh., Asst.Prof of Chemistry, Date: 20.08.2021

To give clarity on the concept of crystallography, Department of Physics organized a webinar on 20.08.2021 through ZOOM entitled "Crystal systems-Bravais Lattices".

Dr.B.Ramesh, Asst. Professor of Chemistry, was the resource person. Around 68 students of B.Sc - final year participated in the programme. The speaker explained the concept of Bravais lattices using 3D - models and animations.

The participants appreciated the clarity of concepts and the beauty of the presentation.

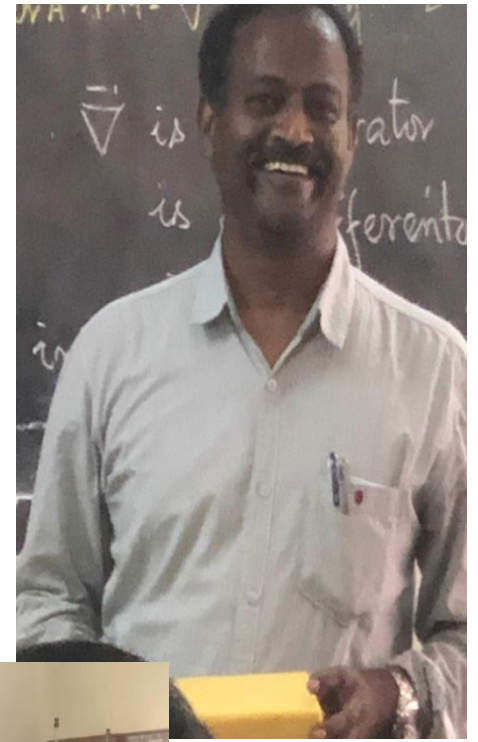
At the end of the programme, the students were given a chance to get their doubts clarified by the speaker.

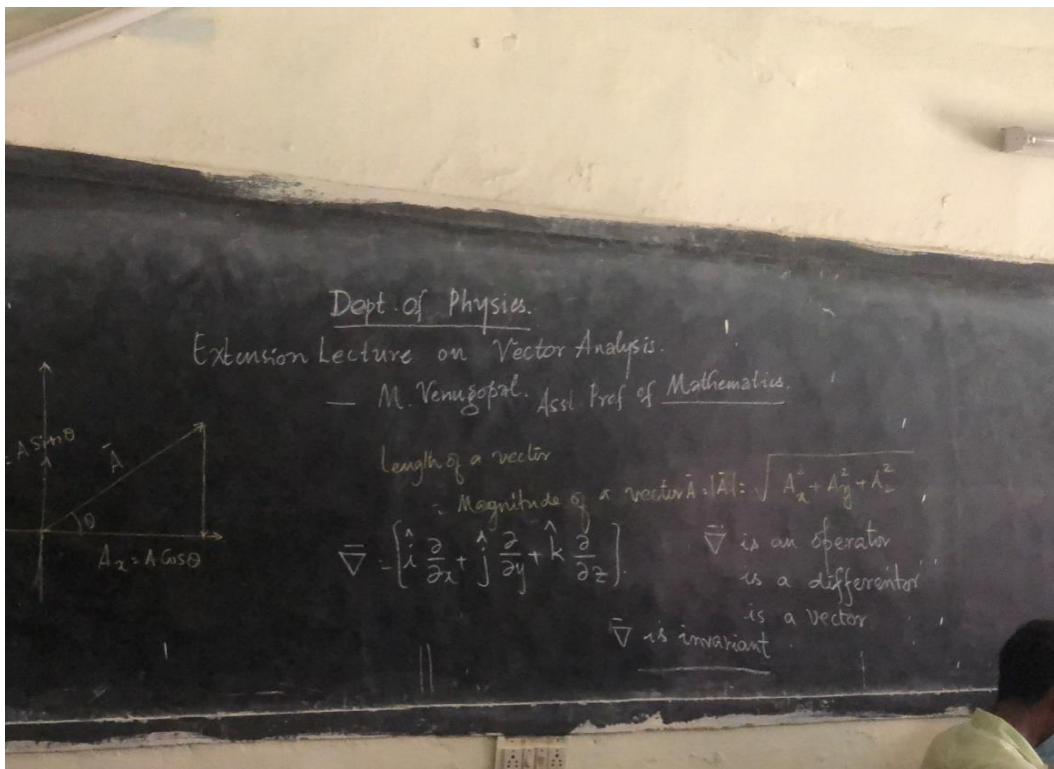
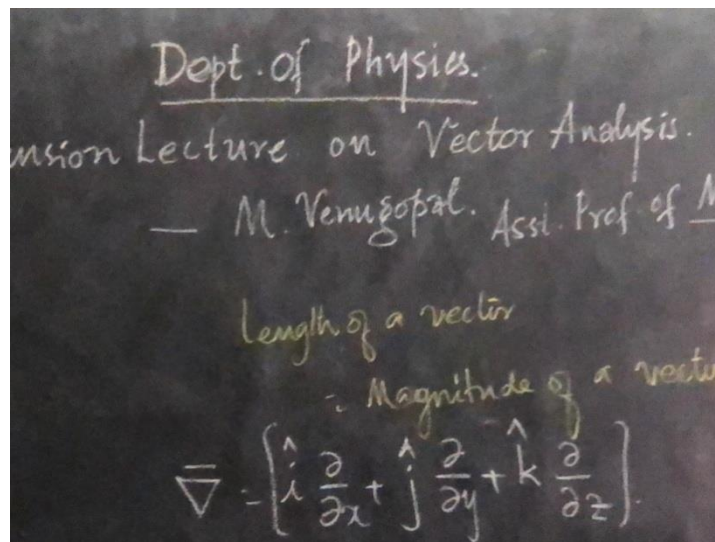


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HANAMKONDA

SEMINAR / EXTENSION LECTURE

Topic: VECTOR ANALYSIS on 02.11.2021





Seminar on Special Theory of Relativity

On 03.12.2021

Resource Person: D. Anantha Ramakrishna

Principal, GJC, Dharamaram & Eenadu Telugu daily Newspaper Columnist



A Brief Report on the Seminar

A seminar on **Special Theory of Relativity** is organized by the Department of Physics, on 03.12.2021. Resource Person of the seminar: D. Anantharama Krishna, Principal of Govt. Jr. College, Dharamaram. Dist: Peddapally, and Eenadu daily News paper Columnist. About 117 students from B.Sc., attended the seminar.

D. Anatha Ramakrishna delivered a lucid lecture to the spell-bound student community. The students expressed their opinion in the end. The doubts of the students were clarified by the speaker.





A seminar on **Integral transforms – Applications in Physics**

Date: 08.12.2021

Resource Person: M.Venugopal, Asst.Prof.of Mathematics



Brief Report on Seminar

A seminar on Integral transforms –Applications in Physics is conducted by the Department of Physics, M.Venugopal. Asst.Prof of Mathematics has given the talk on Integral Transforms – Applications in Physics, on 08.12.2021.

Resource person has delivered the lecture with more no.of applications in Physics of integral transformations. The students expressed their satisfaction after the seminar.

A seminar on Gauss' Divergence Theorem with Different Approaches

Resource Person: D.Venkanna, Asst.Prof. Of Mathematics



**STUDENT FIELD WORK – STUDY PROJECT
ENERGY AUDIT – KGC – A CASE STUDY**

**STUDENT FIELD WORK STUDY PROJECT
ENERGY AUDIT – KGC - A CASE STUDY**



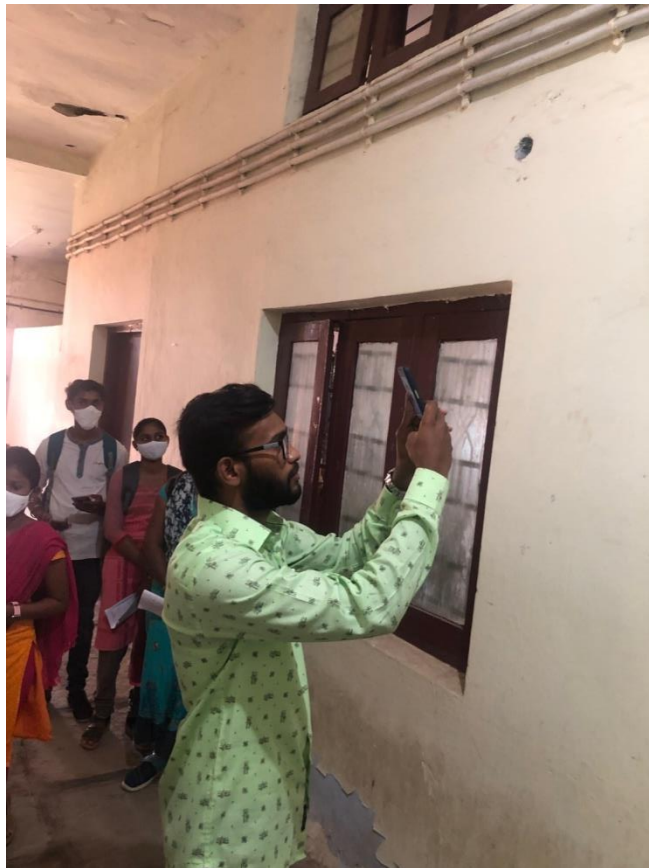
**R.VANDANA
N.ADHARSH
CH.MANASWITHA
K.AKHILA
S.SAMEEKSHA
P.PRANEETHA AND OTHERS**

DEPARTMENT OF PHYSICS., K G C, HANAMKONDA.

The Energy Audit was defined to meet the following objectives:

- Conduct a simple Walk-Through audit or observation of the energy consumption of electrical appliances within the KAKATIAYA GOVERNMENT COLLEGE, HANAMKONDA building.
- Review and analyze energy usage history to create a baseline for which savings can be measured in the audited building.







Student Study Project

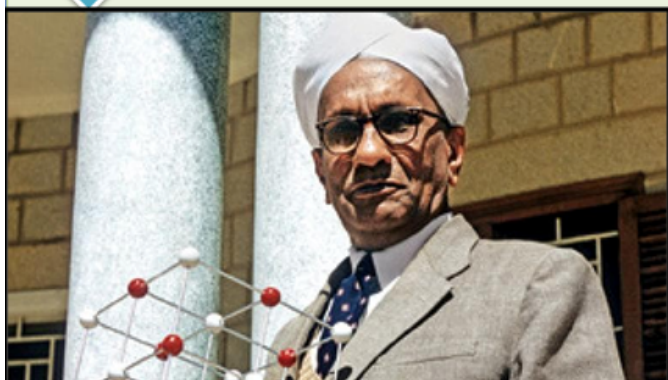
KAKATIYA GOVT. COLLEGE, HANAMKONDA

DIST: WARANGAL., TELANGANA – 506001

(Affiliated to Kakatiya University, Warangal)

(e-mail: warangal.jkc@gmail.com, website: <https://gdcts.cgg.gov.in/hanamkonda.edu>)

DEPARTMENT OF PHYSICS



TITLE OF THE PROJECT :

C.V. RAMAN

A BRILLIANT SON OF INDIA

A . Arun Kumar - MPC – II – Yr., B . Manasa,- MPCs – II - Yr.,
D . Chandradeep - MPC -I -Yr., G . Sandeep Kumar – MPCs – III - Yr.,
G . Sangeetha-MPC – I - Yr., K . Praharsha-MPC – I –Yr., A . Liinga – MPCs-
I- Yr., A . Swapna – MPCs – I Yr., A. Ashok – MPC – III - Yr.,

Objectives:

1. To know the history and the chronology of C.V.Raman works in Physics.
2. To understand the wide range of applications of Raman effect in various fields
3. To motivate the students towards scientific research

ABSTRACT of the Study Project:

In 1928 the Indian physicist C. V. Raman (1888-1970) discovered the effect named after him virtually simultaneously with the Russian physicists G. S. Landsberg (1890-1957) and L. I. Mandelstam (1879-1944).

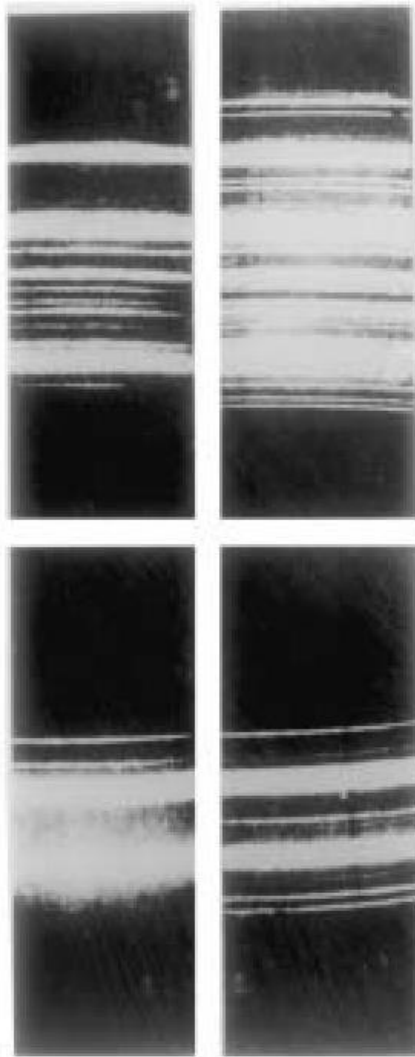
Here, we provide a biographical sketch of Raman through his years at Calcutta (1907-1932) and Bangalore (after 1932).

His scientific work in acoustics, astronomy, and optics up to 1928, including his views on Albert Einstein's light-quantum hypothesis and on Arthur Holly Compton's discovery of the Compton effect, with particular

reference to Compton's debate on it with William Duane in Toronto in 1924, which Raman witnessed. then we examine Raman's discovery of the Raman effect and its reception among physicists.

Finally, we examine the reasons for why Landsberg and Mandelstam did not share the Nobel Prize in Physics for 1930 with Raman.



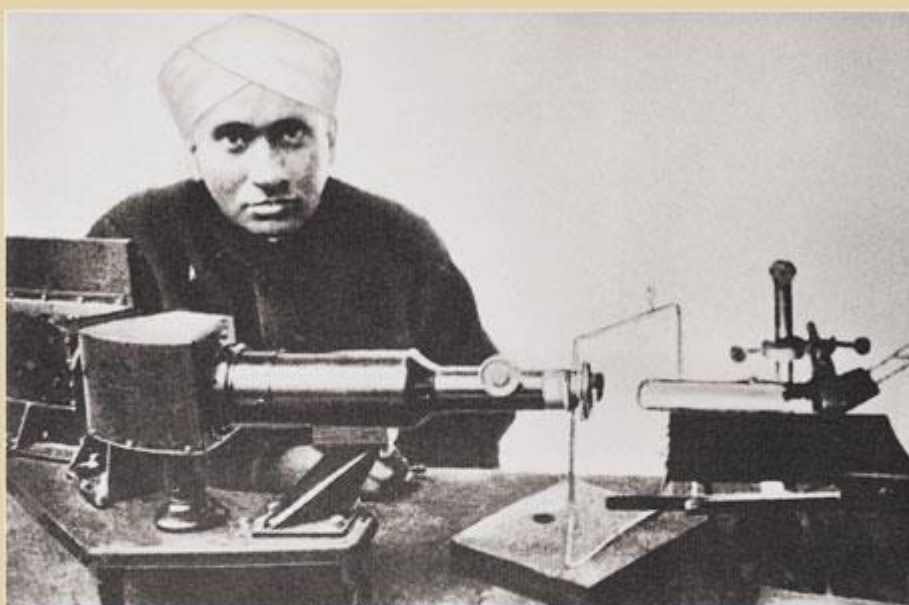


The first spectra taken by C. V. Raman and K. S. Krishnan. The upper-left photograph shows the incident light consisting of the spectrum of a quartz mercury arc lamp after passing through a blue filter that cuts out all wavelengths greater than the indigo line at 4358 Angstroms. The upper-right photograph shows the same spectrum when scattered by liquid benzene and taken with a small Adam Hilger spectroscopy. Note the appearance of modified lines owing to the Raman Effect. The lower-left and the lower-right photographs show the same effect using a different filter. Courtesy of the Raman Research Institute, Bangalore.

AN INTERNATIONAL HISTORIC
CHEMICAL LANDMARK

THE RAMAN EFFECT

JADAVPUR, CALCUTTA
DECEMBER 15, 1998



AMERICAN CHEMICAL SOCIETY



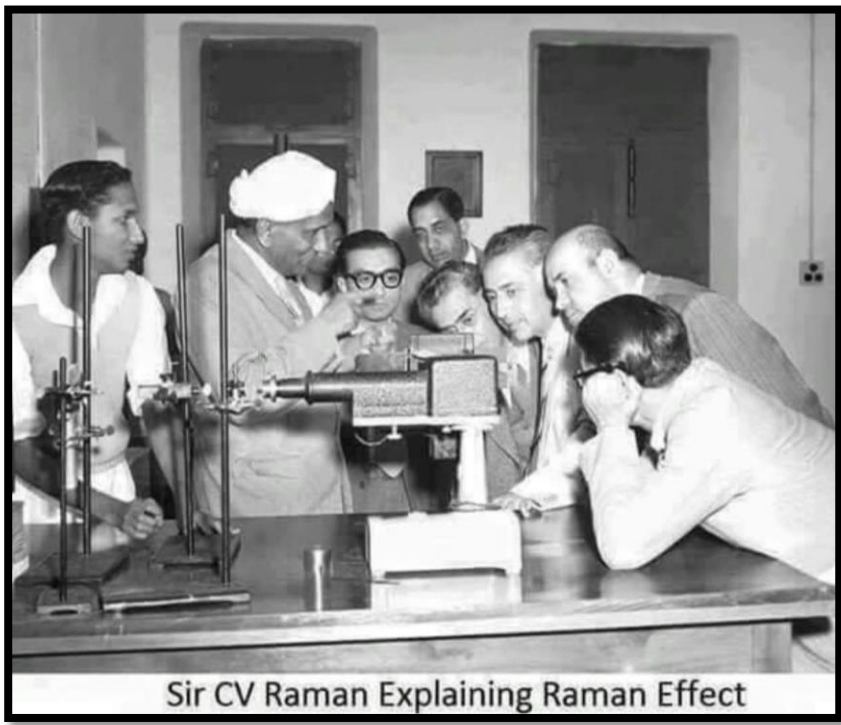
INDIAN ASSOCIATION
FOR THE
CULTIVATION OF
SCIENCE



NATIONAL SCIENCE DAY

Discovery of Raman Effect

Dr. C. V. Raman, known as the "Father of Indian Physics", was born on September 1, 1897, in the village of Pochampalli, Madras. He received his education at the Government College, Pochampalli, and later at the Government College, Bangalore. He was awarded a B.A. in 1917 and a Ph.D. in 1918 from the University of Cambridge. He returned to India in 1919 and was appointed as the first Indian to hold the position of Professor of Physics at the University of Allahabad. He was later elected as the first Indian to hold the position of the Indian Academy Award for Science in 1930. He was also elected as a member of the Indian National Science Academy in 1934. He was awarded the Bharat Ratna in 1930. He was also awarded the Nobel Prize in Physics in 1930 for his work on the Raman effect. He was also awarded the Padma Vibhushan in 1954. He was also awarded the Padma Bhushan in 1956. He was also awarded the Padma Shri in 1958. He was also awarded the Padma Sri in 1960. He was also awarded the Padma Sri in 1962. He was also awarded the Padma Sri in 1964. He was also awarded the Padma Sri in 1966. He was also awarded the Padma Sri in 1968. He was also awarded the Padma Sri in 1970. He was also awarded the Padma Sri in 1972. He was also awarded the Padma Sri in 1974. He was also awarded the Padma Sri in 1976. He was also awarded the Padma Sri in 1978. He was also awarded the Padma Sri in 1980. He was also awarded the Padma Sri in 1982. He was also awarded the Padma Sri in 1984. He was also awarded the Padma Sri in 1986. He was also awarded the Padma Sri in 1988. He was also awarded the Padma Sri in 1990. He was also awarded the Padma Sri in 1992. He was also awarded the Padma Sri in 1994. He was also awarded the Padma Sri in 1996. He was also awarded the Padma Sri in 1998. He was also awarded the Padma Sri in 2000. He was also awarded the Padma Sri in 2002. He was also awarded the Padma Sri in 2004. He was also awarded the Padma Sri in 2006. He was also awarded the Padma Sri in 2008. He was also awarded the Padma Sri in 2010. He was also awarded the Padma Sri in 2012. He was also awarded the Padma Sri in 2014. He was also awarded the Padma Sri in 2016. He was also awarded the Padma Sri in 2018. He was also awarded the Padma Sri in 2020. He was also awarded the Padma Sri in 2022.



Sir CV Raman Explaining Raman Effect

KAKATIYA GOVT.COLLEGE, HANAMKONDA
Dept.of Physics

A seminar on **“Raman Effect and its Applications”**

by Prof.V.Radha Krishna Murthy, Prof of Physics.
Central Instrumentation Center, Dept. of Physics,
Kakatiya University, Warangal

Date: 05.11.2018



Kakatiya Govt. College, Hanamkonda

Department of Physics

Career Guidance and Counseling

Resource Person: Dr.K.Veera Swamy

**Public Relation Officer, University Arts and Science College,
Subedari, Hanamkonda.**

Date: 31.01.2017



A Seminar on Cathode Ray Oscilloscope
Resource Person: Prof.B.Venkat Ram Reddy,
Prof.of Physics, Dept.of Physics, Kakatiya University, Warangal
Date: 19.04.2018

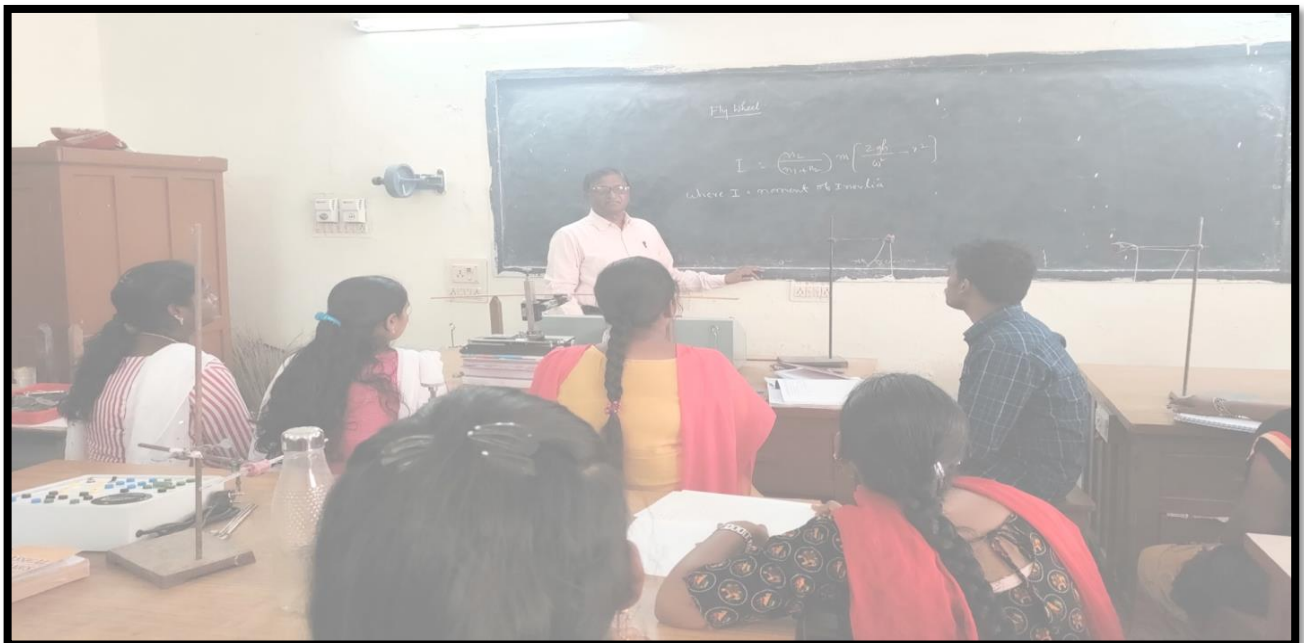


KAKATIYA GOVT.COLLEGE, HANAMKONDA
Dept.of Physics

A seminar on **“Dielectrics and its Applications”**

by Dr.Y.Ranga Reddy, Prof of Physics.

Date: 15.12.2016

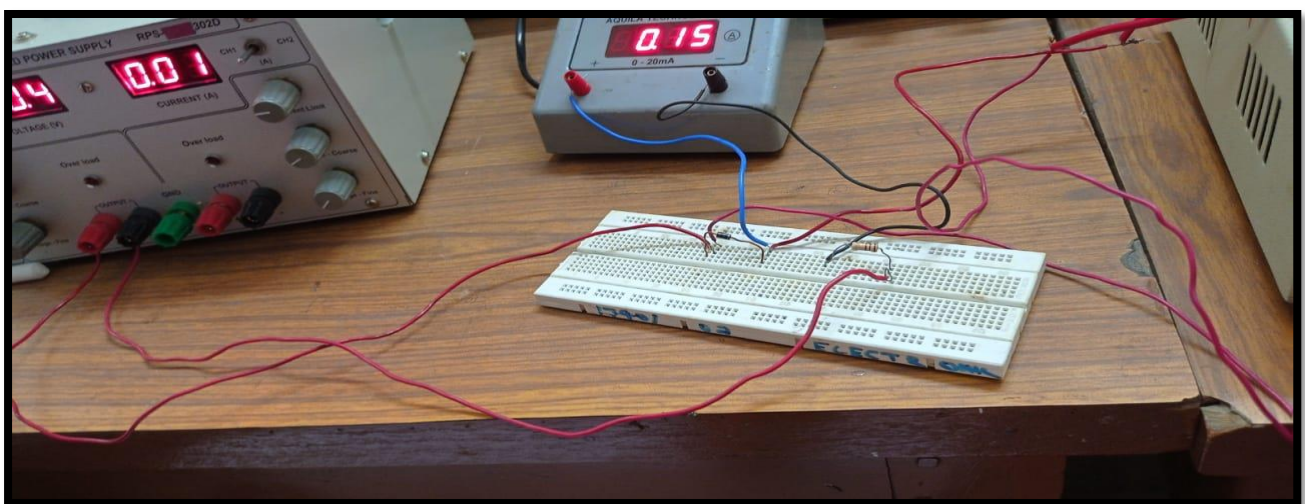


**KAKATIYA GOVT.COLLEGE, HANAMKONDA
DEPARTMENT OF PHYSICS**

One day Workshop on Preparation of low cost equipments

Date: 06.08.2018





KAKATIYA GOVT.COLLEGE, HANAMKONDA
DEPARTMENT OF PHYSICS

A Seminar on “Special Theory of Relativity”

**Resource Person: Dr.B.V.A.Rao, Asst. Professor,
Department of Physics, NIT Warangal**

Date: 11.11.2019



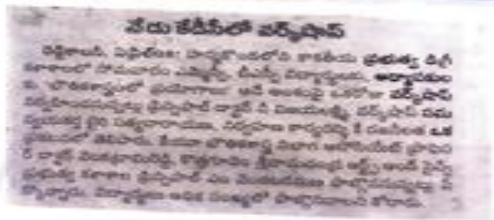
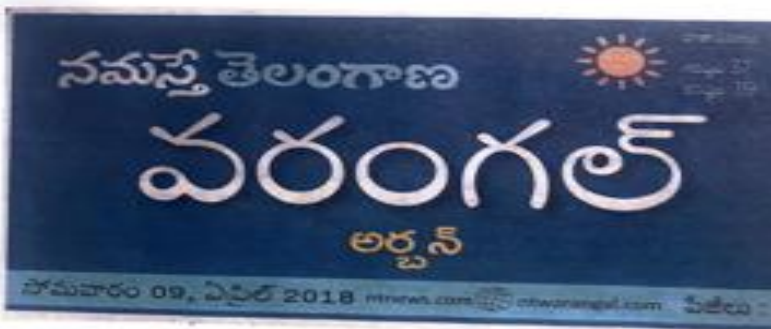
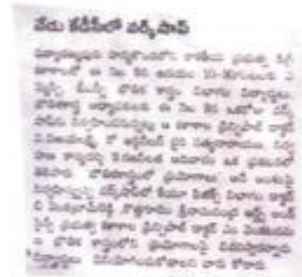
Kakatiya Govt. College, Hanamkonda
Department of Physics
Seminar on Quantum Mechanics
Resource Person: Dr.V.R.K.Prasad
.Date: 30.11.2017



**One Day Workshop on
Conceptual clarity over certain Physical Phenomenon**
Resource Person: Dr.T. Anantha Krishnan,
**Prof.of Physics, Cochin University of Science and
Technology, Kochi.**
Date: 16.12.2016



KAKATIYA GOVT.COLLEGE, HANAMKONDA
DEPARTMENT OF PHYSICS
One Day workshop on Experiments in Physics
Date: 09.04.2018





ONE DAY WORKSHOP ON EXPERIMENTS IN PHYSICS

9th April 2018

Sponsored by

INDIAN ASSOCIATION OF PHYSICS TEACHERS (IAPT)

Telangana (RC22)

Organized by

DEPARTMENT OF PHYSICS

KAKATIYA GOVERNMENT COLLEGE (NAAC "A")

HANAMKONDA, WARANGAL URBAN (DIST), TELANGANA



Participation Certificate

This is to certify that Mr/Ms/ _____ I/II/III Year MSc/BSc/Lecturer
in/Assistant/Associate Professor/ of Physics _____ College,
_____ has participated in the ONE DAY WORKSHOP ON EXPERIMENTS IN PHYSICS –
2018 held on 9th of April, 2018.

Co-ordinator
Bairy Satyanarayana

Organizing Secretary
K. Rajanilatha

Chairperson and Principal
Dr. V. Vijaya Lakshmi



DEPARTMENT OF PHYSICS - KAKATIYA GOVERNMENT COLLEGE - HANAMKONDA

ONE DAY WORKSHOP ON EXPERIMENTS IN PHYSICS - 2018

9th April 2018

Sponsored by

INDIAN ASSOCIATION OF PHYSICS TEACHERS (IAPT)

Telangana (RC-22)

Set - 1



Registration of Participants

| S.No. | Name Of The Participant | Course Studying/Designation | Address (College) | Amount Paid (Rs) | Mobile No | Email Id | Signature |
|-------|-------------------------|-----------------------------|-----------------------|------------------|------------|--------------------------------|---------------|
| WEP1 | K. Saritha | Msc-Phy | kakatiya govt college | 50 | 9133409715 | sarithasarayya@gmail.com | Saritha |
| WEP2 | J. Soundarya | Msc-Phy | KGC | 50 | 9505813459 | soundaryajadi@gmail.com | Soundarya |
| WEP3 | P. Vinusha | Msc-Phy | KGC | 50 | 9550731806 | vinushapasham@gmail.com | P. Vinusha |
| WEP4 | K. Rajnikanth | Bsc-Phy | New-science | 50 | 9573901300 | kadarirajinikanth123@gmail.com | K. Rajnikanth |
| WEP5 | Sushma | Msc-Phy | SVC | 50 | 7032979082 | sushmasrikanth1990@gmail.com | Sushma |

DEPARTMENT OF PHYSICS - KAKATIYA GOVERNMENT COLLEGE - HANAMKONDA

ONE DAY WORKSHOP ON EXPERIMENTS IN PHYSICS - 2018

9th April 2018



Sponsored by
INDIAN ASSOCIATION OF PHYSICS TEACHERS (IAPT)

Telangana (RC22)

Date: 08-04-2018

PRESS NOTE

The Department of Physics, Kakatiya Government College, Hanamkonda is organizing a One Day Workshop on "Experiments in Physics" on 9th April, 2018. This workshop consists of lectures by Prof. B. Venkatram Reddy, Kakatiya University, Warangal and Dr. M. Venkata Ramana, Principal, SRA&S UG and PG College, Kothagudem on focus areas, "The role of experiments in physics, Working and applications of CRO (Cathode Ray Oscilloscope), the phenomenon and applications of Hall Effect, Determination of 'specific charge (e/m) of electron' (magnetron method), Exhibition of diffraction phenomenon using day to day objects" and demonstrations of the experiments. This workshop is mainly aimed at giving a thorough understanding and the philosophy of experiments in physics for MSc (Physics) and final BSc students and lecturers of different colleges. Interested students and teachers can contact the workshop coordinator at 9441278378.

Workshop Coordinator

Bairy Satyanarayana

Organizing Secretary

K. Rajanilatha

Yours Truly

Chairperson and Principal

Dr. V. Vijayalakshmi

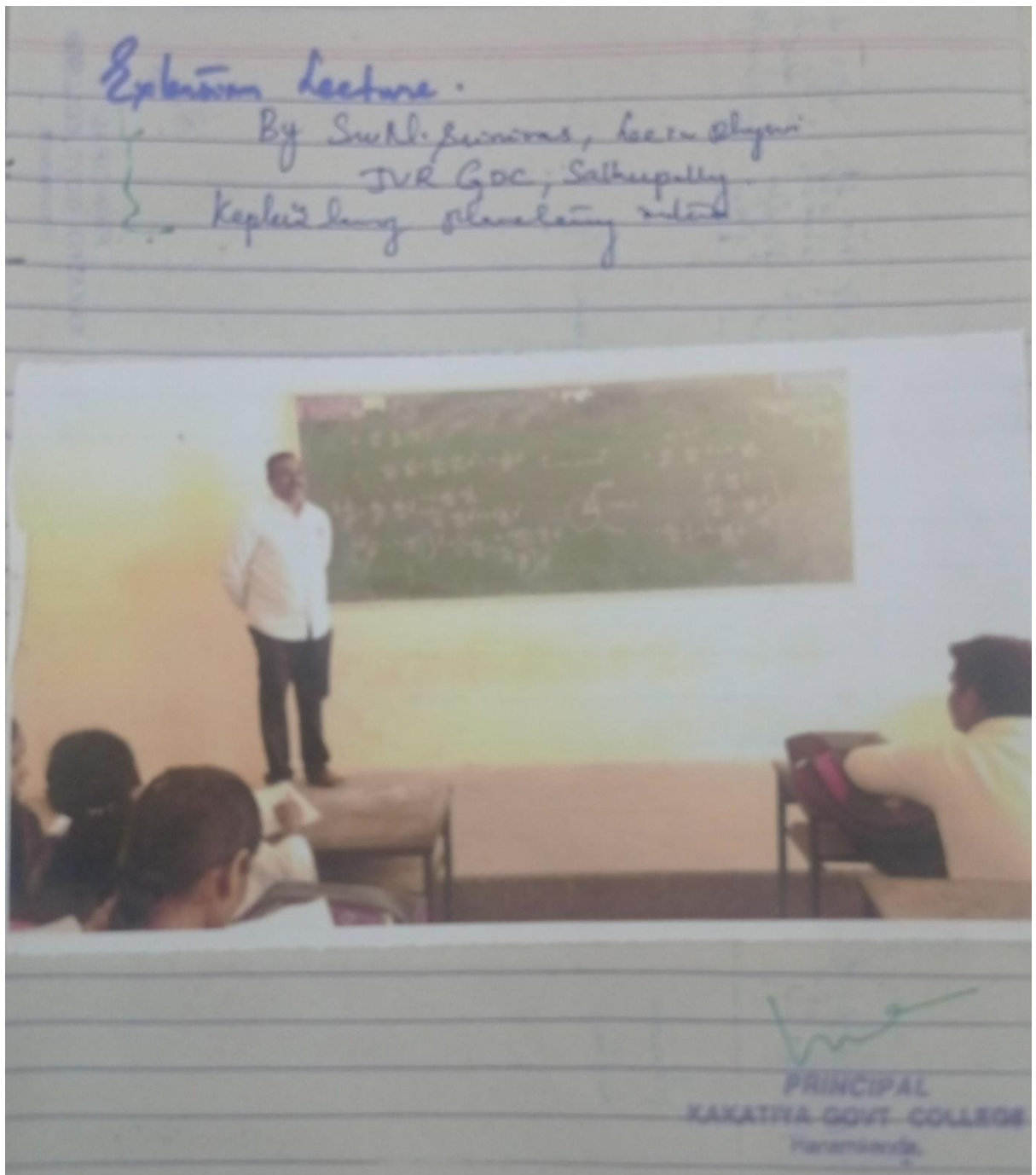
KAKATIYA GOVT.COLLEGE, HANAMKONDA

DEPARTMENT OF PHYSICS

A Seminar on Kepler's Laws and Planetary Motion

**Resource Person: N.Sreenivasa Rao,
Asst.Prof. of Physics, GDC, Sathupally**

Date: 23.01.2017



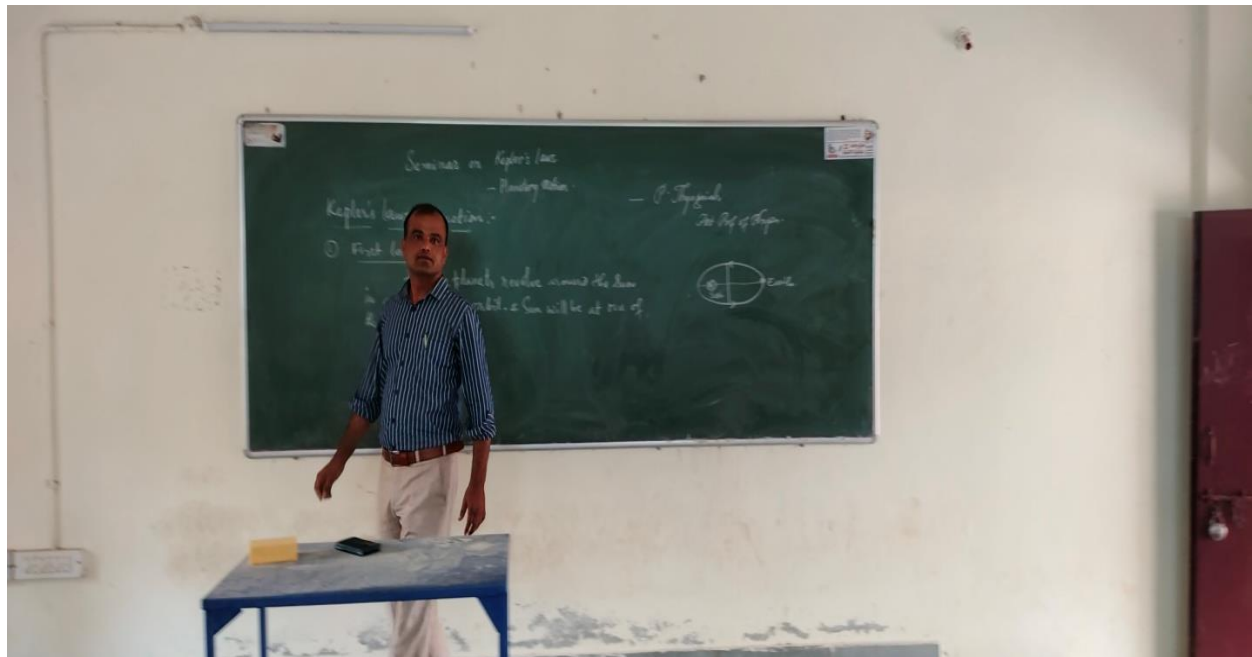
KAKATIYA GOVT.COLLEGE, HANAMKONDA

DEPARTMENT OF PHYSICS

A Seminar on Central Forces

**Resource Person: P.Thyagaiah,
Asst.Prof. of Physics, GDC, Narsampet**

Date: 09.07.2018

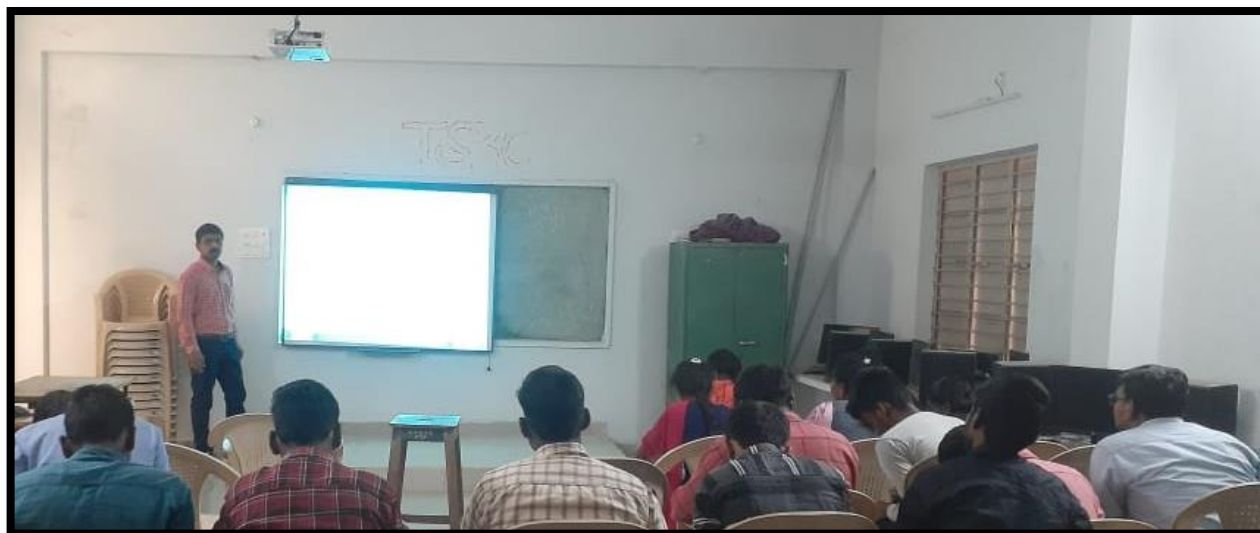


A seminar on Semiconductors
Resource Person: **Dr.P.Balabhaskar,**
Principal, GDC Cheriya
Date: **31.07.2017**



A seminar on Super Conductivity and its Applications

Resource Person: Ch.Sreedhar,
Asst.Prof.of Physics, ABV GDC Jangaon
Date: 19.02.2020



| Sl.No | NAME OF THE STUDENT | SIGNATURE |
|-------|---------------------|---------------|
| 1 | K.Kavya | K.Kavya. |
| 2 | N. Aishwarya | N. Aishwarya |
| 3 | K. Akhila | K. Akhila |
| 4 | G. Prathyusha | G. Prathyusha |
| 5 | K. MOONIKA | K. MOONIKA |
| 6 | G. Garthami | G. Garthami |
| 7 | M. Parvathy | M. Parvathy |
| 8 | Naheda Thabeesum | Naheda |
| 9 | K.Shiva | K. Shiva |
| 10 | M. Nithin | M. Nithin |
| 11 | M. Dileep | M. Dileep |
| 12 | K. Niranjan | K. Niranjan |
| 13 | L. Sai Kumar | L. Sai Kumar |
| 14 | K. Vivek | K. Vivek |
| 15 | K. Anish | K. Anish |
| 16 | M. Tejaswi | M. Tejaswi |
| 17 | K. Prema | K. Prema |
| 18 | G. Ranya | G. Ranya |
| 19 | K. Mamatha | K. Mamatha |
| 20 | E. Dhimalaxmi | E. Dhimalaxmi |
| 21 | K. Rachana | K. Rachana |
| 22 | MD. Neha. | MD. Neha |
| 23 | M. Vaishnavi | M. Vaishnavi |
| 24 | K. Raniteja | K. Raniteja |
| 25 | m. Prashanth | m. Prashanth |

| Sl.No | NAME OF THE STUDENT | SIGNATURE |
|-------|---------------------|-----------------|
| 26 | K. Prashanth | K. Prashanth |
| 27 | G. Venu madhav | G. Venu madhav |
| 28 | K. Dhanendra | K. Dhanendra |
| 29 | K. Mahesh | K. Mahesh |
| 30 | J. Naveen | J. Naveen |
| 31 | K. Elsha | K. Elsha |
| 32 | K. Ravi Raja | K. Ravi Raja |
| 33 | K. Gopi Krishna | K. Gopi Krishna |
| 34 | M. Suresh | M. Suresh |
| 35 | G. Yashu | G. Yashu |
| 36 | I. Mahesh | I. Mahesh |
| 37 | K. Prashanth | K. Prashanth |
| 38 | K. Sai | K. Sai |
| 39 | K. Rajkumar | K. Rajkumar |
| 40 | L. Manjula | L. Manjula |
| 41 | M. Sai Kumar | M. Sai Kumar |
| 42 | M. Rakesh | M. Rakesh |
| 43 | M. Rakesh | M. Rakesh |
| 44 | G. Suresh | G. Suresh |
| 45 | F. Nagaraj | F. Nagaraj |
| 46 | H. Manshi | H. Manshi |
| 47 | K. Ranjith | K. Ranjith |
| 48 | G. Vinod | G. Vinod |
| 49 | G. Naveesh | G. Naveesh |
| 50 | M. Anil | M. Anil |
| 51 | K. Naveen | K. Naveen |
| 52 | M. Suresh. | M. Suresh. |
| 53 | MD. IMRAN | MD. IMRAN |
| 54 | P. Manjula | P. Manjula |

KAKATIYA GOVT.COLLEGE, HANAMKONDA
Dept.of Physics

A seminar on **“Nuclear Physics”**

by **Dr.A.V.Ramana**, Principal, SR Arts & Science College, Kothagudem.

Date: 30.11.2016

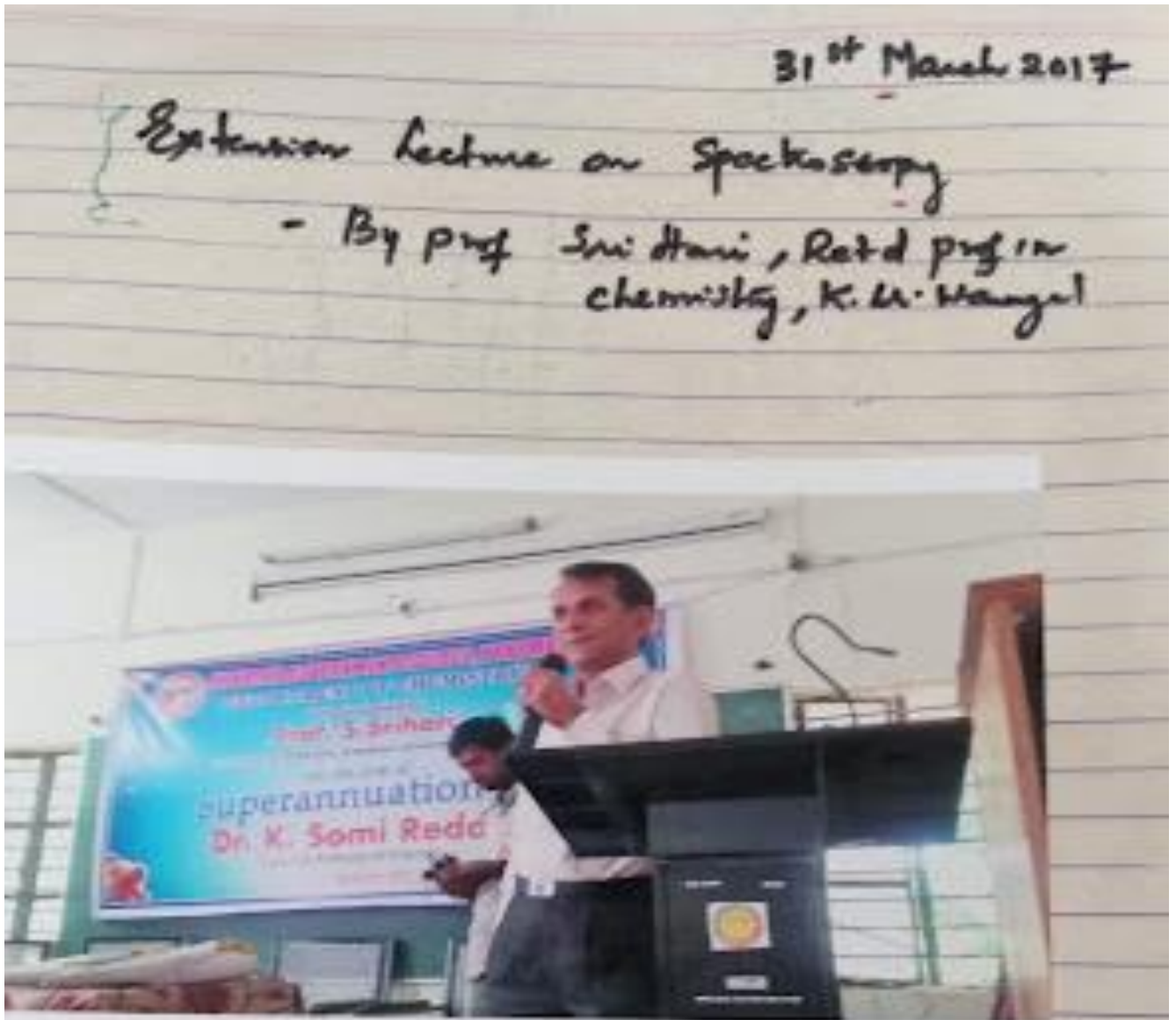


KAKATIYA GOVT.COLLEGE, HANAMKONDA

Dept.of Physics

A seminar on **“Spectroscopy”**
by **Prof.Srihari**, Retd.Prof of Chemistry.

Date: 31.03.2017



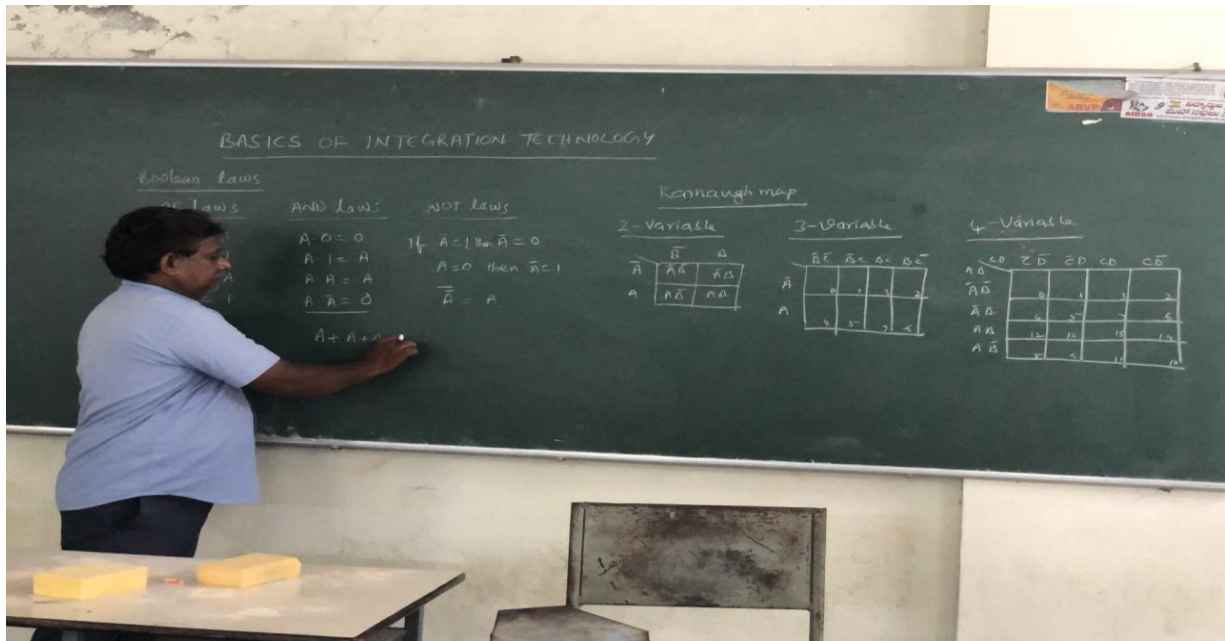
KAKATIYA GOVT.COLLEGE, HANAMKONDA
Dept.of Physics

A seminar on **“Basics of Integration Technology”**

by **Sri K.Rathnaiah**, Asst.Prof of Physics.

Masterji Degree and PG College, Hanamkonda

Date: 24.10.2019



KAKATIYA GOVERNMENT COLLEGE – HANAMKONDA

Dist: Warangal, Telangana State - 506001

(Affiliated to Kakatiya University, Warangal. Accredited by NAAC “A”)

DEPARTMENT OF PHYSICS

ACADEMIC YEAR 2017-18

REPORT ON

WORKSHOP FOR PHYSICAL SCIENCES TEACHERS



Date: 15.12.2017

Subject: Physical Science (Physics)

Organized By:

DEPARTMENT OF PHYSICS

KAKATIYA GOVERNMENT COLLEGE, HANAMKONDA



Inaugural Session:

Sri.T.Jeevan Kumar, Lecturer in Physics is welcoming the gathering and elaborating the significance of workshop



Dr.V.Vijayalaxmi, Principal and Convener, One Day workshop for Physical Sciences Teachers- Dec – 2017 is delivering her inaugural address to the participants, Smt.K.Rajinilatha, Incharge , Dept.of Physics and coordinator of the Workshop can be seen on the dais.



Participants of the Workshop

Session Wise Photographs



Lab Activities - Set-III : Participants are curiously engrossed in learning to perform the experimental activities " Reflection of Light" while T.Jeevan Kumar, Lecturer in Physics, Kakatiya Govt Degree College, Hanamkonda is demonstrating and assisting them with the help of beautifully calligraphed charts, diagrams and very easily available equipments.



Lecture-4(part-I) : Sri.K.Madhusudan, Lecturer in Physics, SRR Govt UG & PG College, Karimnagar is presenting a talk on "Principles of Electromagnetism10th class Physical Science" with the help of power point presentation as well as performance of the same with relevant apparatus at hand.



Lab Activities - Set-IV : Sri.J.Swamy, Lecturer in Physics, Govt Degree College, Hanamkonda is demonstrating the participants a series of experiments on "Dispersion of Light with Spectrometer and Sodium Light" and making them to have a hands on experience to take readings on their owns, with the help of beautifully calligraphed charts, diagrams and very easily available objects.



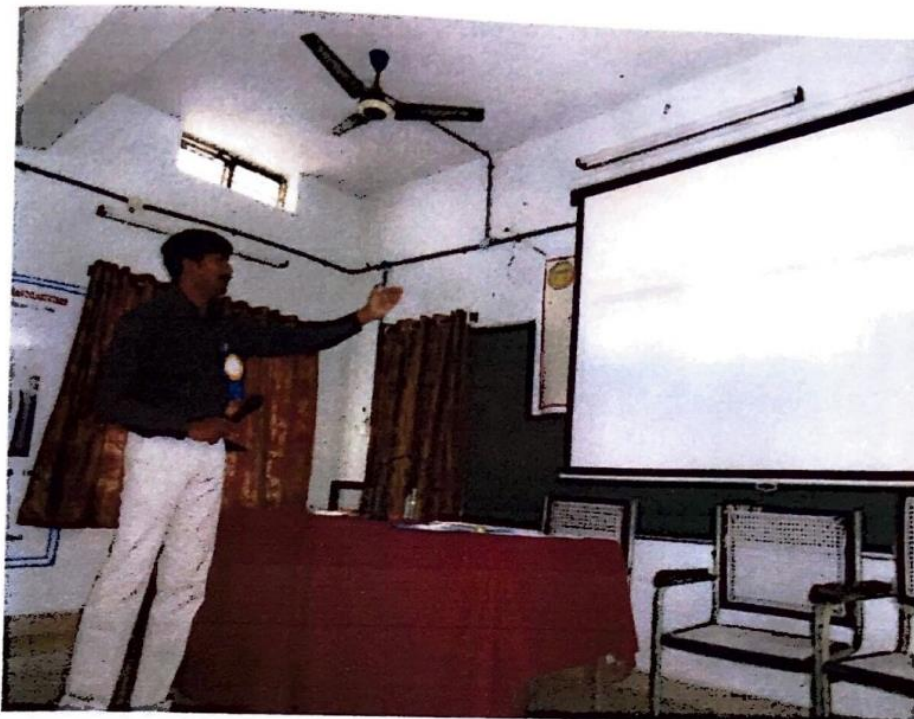
Lecture-4 (part-II): Sri.K.Madhusudan, Lecturer in Physics, SRR Govt UG & PG College, Karimnagar is presenting a talk on "Principles of Electromagnetism10th class Physical Science" with the help of power point presentation as well as performance of the same with relevant apparatus at hand.



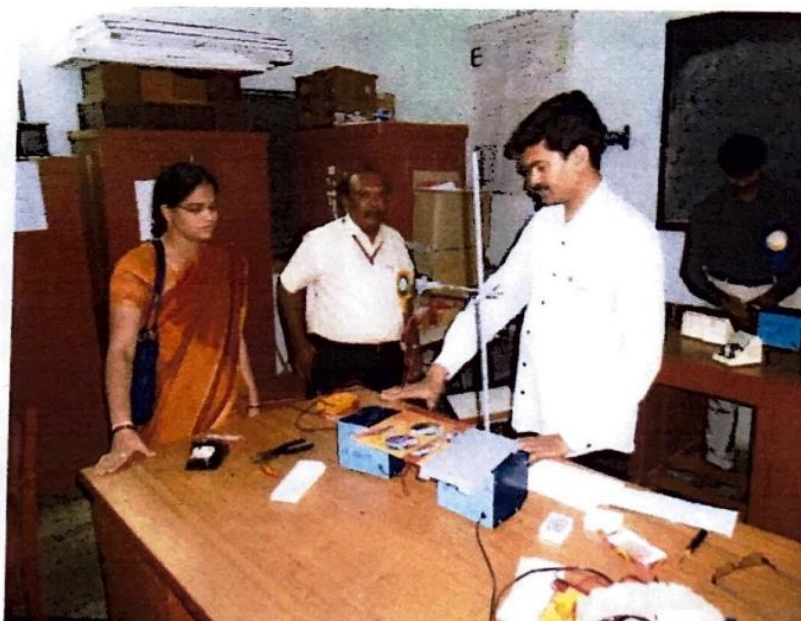
Lecture-3 : Dr.K.Narender Reddy, Junior Lecturer in Physics, Govt Junior College, Hanamkonda is delivering a talk on “Current Electricity (10th class Physical Science)” in a heuristic manner just with the help of a meter scale, thread and chalk based on simple linear geometric concepts.



Lab Activities - Set-II : Participants are trying to perform the experimental activity “Magnetic lines of force” on their in order to have a hands on experience Kumari while Kumari. Swetha and Kumari. Sindhuja, I-MSC(Physics) students of Kakatiya Govt Degree College, Hanmkonda are explaining and assisting them with the help of beautifully calligraphed charts, diagrams and very easily available equipments.



Lecture-1 : Sri.T.Jeevan Kumar, Lecturer in Physics is presenting a talk on “Reflection of Light (Ray Optics – 10th class Physical Science)” with the help of power point presentation.



Lab Activities - Set-I : Sri.B.Raju, Lecturer in Physics, Govt Degree College, Eturnagaram is demonstrating to Smt Vasanthi, deputy DEO, Warangal Division a series of experiments and making them to have a hands on experience to take readings on their owns, on “ Electricity, Ohm’s la etc (10th class Physical Science)” with the help of beautifully calligraphed charts, diagrams and very easily available objects, while Sri.T.Jeevan Kumar and Sri.J.Swamy are arranging other experimental arrangements.



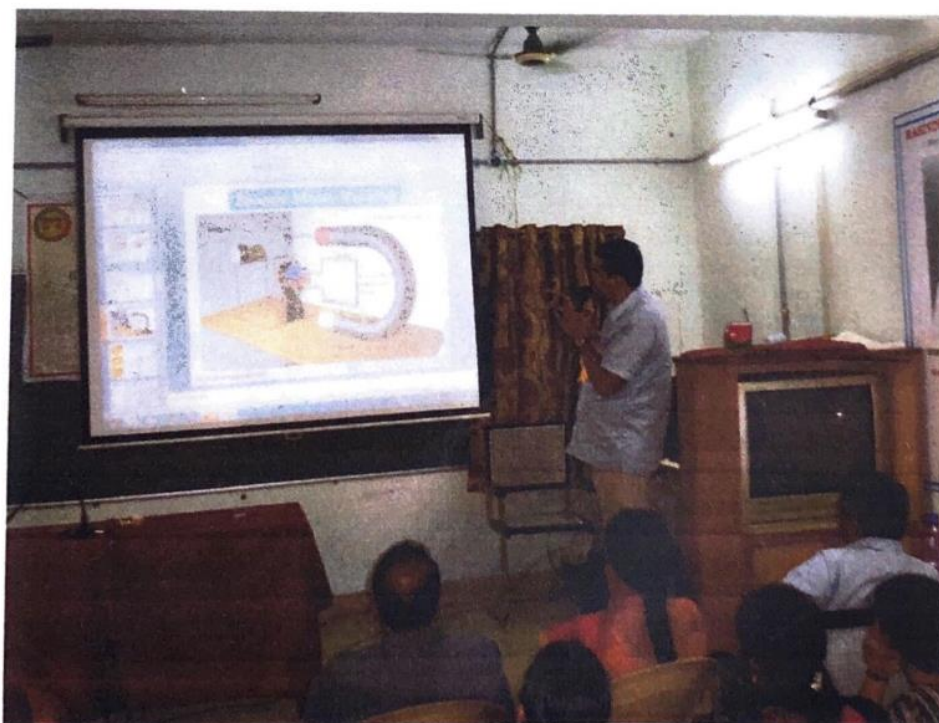
Participants are enthusiastically listening and jotting down notes of relevant phenomena of different topics pertaining to the Physical science, 10th class.



Valedictory : Participants along with guest Smt.Vasanthi, Dy.EO, Warangal Division are seen concentrating to the opinions poured out by the participants at the end of the workshop.



Lecture-4(part-I) : Sri.K.Madhusudan, Lecturer in Physics, SRR Govt UG & PG College, Karimnagar is presenting a talk on “Principles of Electromagnetism(10th class Physical Science)” with the help of power point presentation as well as performance of the same with relevant apparatus at hand.



Lecture-4 (part-II): Sri.K.Madhusudan, Lecturer in Physics, SRR Govt UG & PG College, Karimnagar is presenting a talk on “Principles of Electromagnetism(10th class Physical Science)” with the help of power point presentation as well as performance of the same with relevant apparatus at hand.