



S.K.R Govt. Degree college, Gudur, SPSR Nellore Dist.  
Department of Physics



## Criteria Wise Departmental Activities 2019-2020

N.Nagaraj M.Sc.M.Phil.  
Lecturer in Physics

## CRITERIA I: Curricular Aspects

1.1 Curriculum design and development  
(Autonomous colleges)

1.1 Curriculum planning and implementation  
(Affiliated colleges)

1.2 Academic Flexibility

1.3 Curriculum enrichment

1.4 Feedback system

### **1.1Curriculum design and development:**

- Curriculum designed in the form of Choice Based Credit System by the V.S University.
- Choice Based Credit System was proved to be effective for student's for overall progression.
- The Choice Based Credit System facilitate freedom for the learners to decide on papers they wish to learn.

### **1.1.Curriculum planning and implementation :**

- Maintained well framed Academic calendar and lesson plans, Schedule systematic delivery of content.
- To promote academic excellence in the areas of student choice.
- To make the system more self-reliant by introducing at least partially the internal assessment process.
- To enable student to enhance their practical skills.
- To facilitate awareness of the current trend and movement in the chosen subject.

### **1.2.Academic Flexibility :**

- The students are given choice based elective and cluster papers which they wish to learn.
- Implemented the courses like Leadership Management, Entrepreneurship, Soft and communication skills to enhance the skill and entrepreneurship attitude.

### **1. 3.Curriculum enrichment:**

- In order to extend students' education beyond their main course of study we provide Bridge course for first year students, group projects, practical work, creative expression, discussion and brain-storming sessions. These programs enrich the students' educational experience for further education and enhance students' confidence to achieve their goals.

### **1.4.Feedback system :**

- Student Feedback system for students have been implemented on various areas i.e., Feed back on course for the improvement of course content, Feedback on faculty to analyse faculty performance and Parents Feedback for overall constructive development of the institution.

## CRITERIA II: Teaching-Learning and Evaluation

2.1 Student enrollment and Profile

2.2 Catering to student Diversity

2.3 Teaching –Learning Process

1. Class room activities (Month wise)
2. Student Seminars

2.4 Teacher Profile and Quality

2.5 Evaluation Process and Reforms

1. Assignments
2. Project work

2.6 Student Performance and Learning outcomes

1. Programme outcomes (Pos)
2. Academic Results

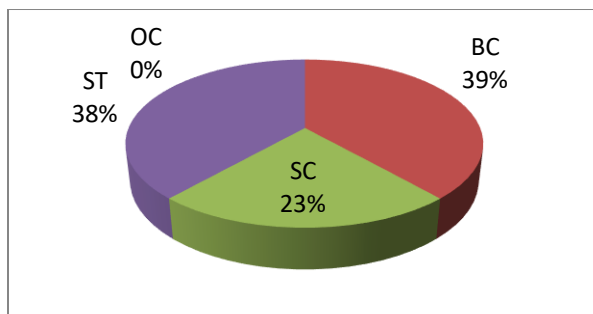
2.7 Student Satisfaction Survey

## 2.1 Student enrollment and Profile

| S.NO                   | Name of the student | Hall Ticket Number | Group |
|------------------------|---------------------|--------------------|-------|
| <b><i>I B.Sc</i></b>   |                     |                    |       |
| 1.                     | Ch. Venkateswarlu   | 193129001          | MPC   |
| 2.                     | Ch. Naveen          | 193129002          | MPCs  |
| 3.                     | G. Venkateswarlu    | 193129003          | MPCs  |
| 4.                     | J . Ganesh          | 193129004          | MPCs  |
| 5.                     | Sk. Akhila          | 193129005          | MPCs  |
| <b><i>II B.Sc</i></b>  |                     |                    |       |
| 1.                     | k.Sreenivasulu      | 183129001          | MPCs  |
| 2.                     | P.Nissi             | 183129002          | MPCs  |
| 3.                     | P.Venkaiah          | 183129003          | MPCs  |
| 4.                     | S.Vinodh            | 183129004          | MPCs  |
| 5.                     | Y.Sasi Kumar        | 183129005          | MPCs  |
| <b><i>III B.Sc</i></b> |                     |                    |       |
| 1.                     | D.Yedukondalu       | 173129001          | MPCs  |
| 2.                     | G.Gowtham Kumar     | 173129002          | MPCs  |
| 3.                     | M.Govardhan         | 173129003          | MPCs  |
| 4.                     | N.Sasi kumar        | 173129004          | MPCs  |

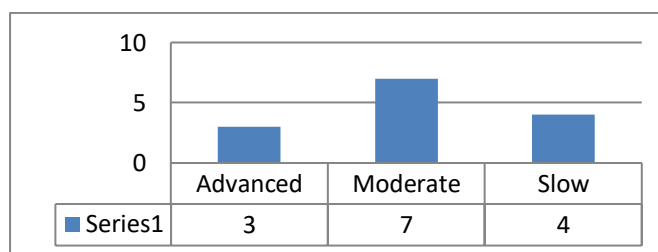
➤ Social Status:

| S.NO                   | Name of the student | Hall Ticket Number | Group | Mode of Learner |
|------------------------|---------------------|--------------------|-------|-----------------|
| <b><i>I B.Sc</i></b>   |                     |                    |       |                 |
| 1.                     | Ch. Venkateswarlu   | 193129001          | MPC   | SC              |
| 2.                     | Ch. Naveen          | 193129002          | MPCs  | ST              |
| 3.                     | G. Venkateswarlu    | 193129003          | MPCs  | ST              |
| 4.                     | J . Ganesh          | 193129004          | MPCs  | ST              |
| 5.                     | Sk. Akhila          | 193129005          | MPCs  | BC-E            |
| <b><i>II B.Sc</i></b>  |                     |                    |       |                 |
| 1.                     | K.Sreenivasulu      | 183129001          | MPCs  | SC              |
| 2.                     | P.Nissi             | 183129002          | MPCs  | BC-C            |
| 3.                     | S.Vinodh            | 183129004          | MPCs  | BC              |
| 4.                     | Y.Sasi Kumar        | 183129005          |       | ST              |
| <b><i>III B.Sc</i></b> |                     |                    |       |                 |
| 1.                     | D.Yedukondalu       | 173129001          | MPCs  | BC-A            |
| 2.                     | G.Gowtham Kumar     | 173129002          | MPCs  | BC-A            |
| 3.                     | M.Govardhan         | 173129003          | MPCs  | SC              |
| 4.                     | N.Sasi kumar        | 173129004          | MPCs  | ST              |



## 2.2 Catering to student Diversity

| S.NO                   | Name of the student | Hall Ticket Number | Group | Mode of Learner |
|------------------------|---------------------|--------------------|-------|-----------------|
| <b><i>I B.Sc</i></b>   |                     |                    |       |                 |
| 1.                     | Ch. Venkateswarlu   | 193129001          | MPC   | Moderate        |
| 2.                     | Ch. Naveen          | 193129002          | MPCs  | Moderate        |
| 3.                     | G. Venkateswarlu    | 193129003          | MPCs  | Moderate        |
| 4.                     | J . Ganesh          | 193129004          | MPCs  | Moderate        |
| 5.                     | Sk. Akhila          | 193129005          | MPCs  | Slow            |
| <b><i>II B.Sc</i></b>  |                     |                    |       |                 |
| 1.                     | K.Sreenivasulu      | 183129001          | MPCs  | Moderate        |
| 2.                     | P.Nissi             | 183129002          | MPCs  | Advanced        |
| 3.                     | P.Venkaiah          | 183129003          | MPCs  | Slow            |
| 4.                     | S.Vinodh            | 183129004          | MPCs  | Moderate        |
| 5.                     | Y.Sasi Kumar        | 183129005          |       | Moderate        |
| <b><i>III B.Sc</i></b> |                     |                    |       |                 |
| 1.                     | D.Yedukondalu       | 173129001          | MPCs  | Slow            |
| 2.                     | G.Gowtham Kumar     | 173129002          | MPCs  | Slow            |
| 3.                     | M.Govardhan         | 173129003          | MPCs  | Advanced        |
| 4.                     | N.Sasi kumar        | 173129004          | MPCs  | Advanced        |





## 2.3 Teaching –Learning Process

### ➤ Class room activities:

Lecturer: N. Nagaraj

Semesters: I, III &V

| S. No                       | SEM | Mode of activity | Date     | Topic                                         |
|-----------------------------|-----|------------------|----------|-----------------------------------------------|
| <i>June &amp; July 2019</i> |     |                  |          |                                               |
| 1.                          | V   | Class Test       | 01.07.19 | Gauss law, E due to Uniformly charged Sphere. |
| 2.                          | V   | Student Seminar  | 01.07.19 | Electro statics                               |
| 3.                          | III | Class Test       | 03.07.19 | Spherical Aberration                          |
| 4.                          | V   | Class Test       | 04.07.19 | Hall effect                                   |
| 5.                          | III | Class Test       | 04.07.19 | Chromatic Aberration                          |
| 6.                          | I   | Class Test       | 05.07.19 | Variable Mass System                          |
| 7.                          | V   | Class Test       | 08.07.19 | Biot- Savart law                              |
| 8.                          | I   | Class Test       | 09.07.19 | Elastic Collision                             |
| 9.                          | I   | Class Test       | 22.07.19 | Precession of a top                           |
| 10.                         | III | Class Test       | 23.07.19 | Fresnel's biprism                             |
| 11.                         | V   | Class Test       | 26.07.19 | Transverse nature of electromagnetic Waves    |
| 12.                         | III | Class Test       | 30.07.19 | Quarter wave plate                            |
| 13.                         | III | Class Test       | 31.07.19 | Nicol Prism                                   |

August, September & October 2019:

| S.NO | SEM | Mode of activity | Date     | Topic                      |
|------|-----|------------------|----------|----------------------------|
| 1.   | III | Class Test       | 03.08.19 | Michelson Interferometer   |
| 2.   | III | Class Test       | 05.08.19 | Beams                      |
| 3.   | V   | Class Test       | 07.08.19 | Transistor                 |
| 4.   | III | Class Test       | 13.08.19 | Ruby Laser                 |
| 5.   | V   | Internal Exam    | 19.08.19 | On completed syllabus      |
| 6.   | I   | Internal Exam    | 20.08.19 | First and Second Units     |
| 7.   | I   | Internal Exam    | 22.08.19 | First and Second Units     |
| 8.   | V   | Class Test       | 27.08.19 | Einstein coefficients      |
| 9.   | III | Class Test       | 31.08.19 | Wedge shaped Film          |
| 10.  | III | Class Test       | 07.09.19 | Half Period Zones          |
| 11.  | III | Class Test       | 12.09.19 | Zone plate                 |
| 12.  | I   | Class Test       | 12.09.19 | Kepler's laws              |
| 13.  | I   | Class Test       | 23.09.19 | Michelson-Morly Experiment |
| 14.  | III | Internal Exam    | 24.09.19 | On prescribed syllabus     |
| 15.  | III | Student Seminar  | 25.09.19 |                            |

|                                                                                |     |                 |          |                           |
|--------------------------------------------------------------------------------|-----|-----------------|----------|---------------------------|
| 16.                                                                            | III | Class Test      | 26.10.19 | Babinet Compensator       |
| 17.                                                                            | III | Class Test      | 28.10.19 | Cosine law Derivation     |
| 18.                                                                            | III | Class Test      | 01.11.19 | Pile of Plates, Malus Law |
| <b>Dasara Holidays From 02.10.2019 to 08.10.2019</b>                           |     |                 |          |                           |
| 19.                                                                            | III | Problem Solving | 15.10.19 | On completed syllabus     |
| 20.                                                                            | I   | Class Test      | 21.10.19 | Stokes and Gauss Theorem  |
| <b>From 06.11.2019 to 28.11.2019 I, III &amp; V Semesters University Exams</b> |     |                 |          |                           |

**Semesters: II, IV&VI**

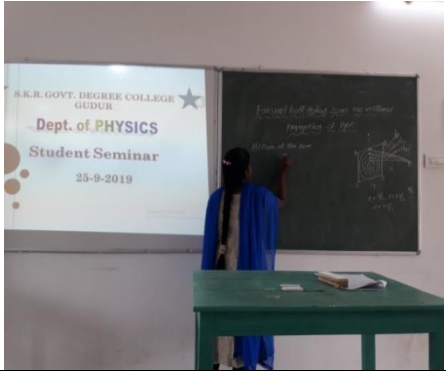
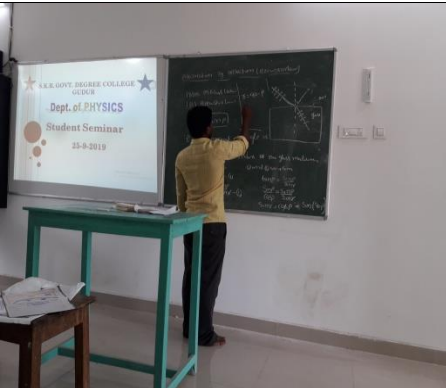
**Month: Nov, Dec, Jan and Feb (2020)**

| <b>S. No</b>                                            | <b>SEM</b>                                                       | <b>Mode of activity</b> | <b>Date</b> | <b>Topic</b>              |
|---------------------------------------------------------|------------------------------------------------------------------|-------------------------|-------------|---------------------------|
| 1.                                                      | VI                                                               | Class Test              | 18.12.19    | Energy flow diagram       |
| 2.                                                      | IV                                                               | Class Test              | 19.12.19    | Carnot Engine             |
| 3.                                                      | II                                                               | Class Test              | 21.12.19    | Torsional Pendulum        |
| 4.                                                      | VI                                                               | Class Test              | 04.01.20    | Nuclear Power Reactors    |
| 5.                                                      | IV                                                               | Class Test              | 07.01.20    | T-S Diagram               |
| 6.                                                      | VI                                                               | Class Test              | 09.01.20    | Solar Water Heater        |
| 7.                                                      | VI                                                               | Class Test              | 10.01.20    | Solar cell & Applications |
| <b>Sankranti Holidays From 11.01.2020 to 19.01.2020</b> |                                                                  |                         |             |                           |
| 8.                                                      | IV                                                               | Class Test              | 21.01.20    | Joul- Kelvin Effect       |
| 9.                                                      | IV                                                               | Class Test              | 25.01.20    | Adiabatic Demagnetisation |
| 10.                                                     | IV                                                               | Internal Exam           | 28.01.20    | First and Second Units    |
| 11.                                                     | VI                                                               | Internal Exam           | 30.01.20    | First and Second Units    |
| 12.                                                     | II                                                               | Class Test              | 30.01.20    | Compound Pendulum         |
| 13.                                                     | National Science Day celebrated on 28.02.2020                    |                         |             |                           |
| 14.                                                     | Science Exhibition conducted in Physics Laboratory on 28.02.2020 |                         |             |                           |

➤ STUDENT SEMINARS SEM (V):

| S.NO | Name of the student | Seminar Topic                                                                                           | Delivering Topic                                                                                                                                                       |
|------|---------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | N. Sasi Kumar       | <b>Electrified intensity due to uniformly charged Sphere.</b><br><b>Date : 01.07.2019</b>               |   |
| 2    | M.Govardhan         | <b>Electric field Intensity due to infinitely charged conducting plate.</b><br><b>Date : 01.07.2019</b> |                                                                                    |

➤ STUDENT SEMINARS SEM (III):

| S.NO | Name of the student | Seminar Topic                                        | Delivering Topic                                                                                                                                                       |
|------|---------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | P. Nissi            | <b>Fresnel Half period Zones</b><br>Date: 25.09.2019 |   |
| 2    | Y. Sasi Kumar       | <b>Brewster's Law</b><br>Date: 25.09.2019            |                                                                                    |

➤ II B.SC (MPCS), IV SEM(18.02.2020)

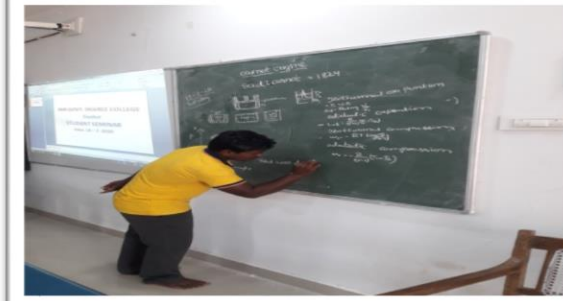
1.



Name : P.Nissi

Topic: Coefficient of Thermal Conductivity

2.



Y. Sasi Kumar

Topic: Carnot's Engine

3.



S.Vinodh

Topic : Maxwell's Equations

## 2.4 Teacher Profile and Quality:

|     |                                        |                                 |
|-----|----------------------------------------|---------------------------------|
| 1.  | Name of the Lecturer                   | N.Nagaraj                       |
| 2.  | Qualification                          | M.SC. M.Phil                    |
| 3.  | Area of Research                       | Polymer Thin Films              |
| 4.  | Number of Research Papers              | 02(International)               |
| 5.  | University in Which Studied            | S.V University, Tirupati        |
| 6.  | Date of Joining as Lecturer            | 20.05.2004                      |
| 7.  | Direct/Promotion                       | Direct (Through APPSC)          |
| 8.  | Place of First Appointment             | Kodad, Nalgonda Dist.           |
| 9.  | Date of Joining in the Present Station | 30.06.2016                      |
| 10. | Total Service                          | 16 Years                        |
| 11. | Number Refresher Courses Attended      | 02                              |
| 12. | Number Orientation Courses Attended    | Nil                             |
| 13. | Number of Seminars Attended            | National: 09, District Level:07 |
| 14. | BOS Capacity                           | Member                          |

## 2.5 Evaluation Process and Reforms:

- Internal exams conducted as per academic calendar given by University.
- Apart from Internal exams class tests conducted on regular basis to evaluate student performance in subject.
- Question bank, model question papers and university exams previous question papers of all semesters are kept in department library for overall knowledge on subject and as well as examination pattern.
- Student's performance is evaluated through the assignments, projects allotted to them.



➤ Assignments submitted by students:

| S.NO | Sem | Group | Name of the Student | Topic                                               |
|------|-----|-------|---------------------|-----------------------------------------------------|
| 1.   | V   | MPCS  | N.Sasi Kumar        | 1.Definitions in Electrostatics                     |
| 2.   |     |       |                     | 2.E due to uniformly charged cylinder               |
| 3.   | III | MPCS  | P.Nissi             | 1.E due to uniformly charged cylinder               |
| 4.   |     |       |                     | 1.Lens Aberrations                                  |
| 5.   | IV  | MPCS  | P.Nissi             | 2.Interference                                      |
| 6.   |     |       |                     | 3.Polarization                                      |
| 7.   |     |       |                     | 1.Thermodynamics                                    |
| 8.   | I   | MPCS  | S.Vinodh            | 2.Thermodynamic potentials and Maxwell's equations  |
| 9.   |     |       |                     | 1.Thermodynamics                                    |
| 10.  |     |       |                     | 2.Thermodynamic potentials and Maxwell's equations  |
| 11.  | I   | MPCS  | Y.Sasi Kumar        | 1.Thermodynamics                                    |
| 12.  |     |       |                     | 2. Thermodynamic potentials and Maxwell's Equations |
| 13.  |     |       |                     | 1. Mechanics of Particals                           |
| 14.  | I   | MPCS  | G.Venkateswarlu     | 2. Rigid Body Dynamics                              |
| 15.  |     |       |                     | 1. Mechanics of Particals                           |
| 16.  |     |       |                     | 2. Rigid Body Dynamics                              |
| 17.  | I   | MPCS  | CH.Naveen           | 1. Mechanics of Particals                           |
| 18.  |     |       |                     | 2. Rigid Body Dynamics                              |
| 19.  | I   | MPCS  | CH.Ganesh           | 1. Mechanics of Particals                           |
| 20.  |     |       |                     | 2. Rigid Body Dynamics                              |

➤ **PROJECT WORK:**

The Final year B.Sc.(MPCS) students have done their Project work on “ Environmental Pollution- Causes and Consequences” for the academic year 2019-2020.

| S.NO | TOPIC                                               | PAGE NO |
|------|-----------------------------------------------------|---------|
| 1.   | Introduction                                        | 1       |
| 2.   | Main causes of Environmental Pollution              |         |
|      | I. Population growth                                | 2       |
|      | II. Increased General Affluence and Economic Growth | 2       |
|      | III. Nature of Modern Technology                    | 3       |
|      | IV. Deforestation                                   | 3-4     |
|      | V. Agricultural Development                         | 4       |
|      | VI. Industrial Development                          | 4-6     |
|      | VII. Urbanization                                   | 6       |
|      | VIII. Unplanned Urbanization                        | 6-7     |
|      | IX. Coal burnt Thermal Power Plants                 | 7-8     |
|      | X. Poverty                                          | 8       |
| 3.   | Conclusion                                          | 8-9     |
| 4.   | The images related to Environmental pollution       | 10-12   |

## 2.6 Student Performance and Learning outcomes:

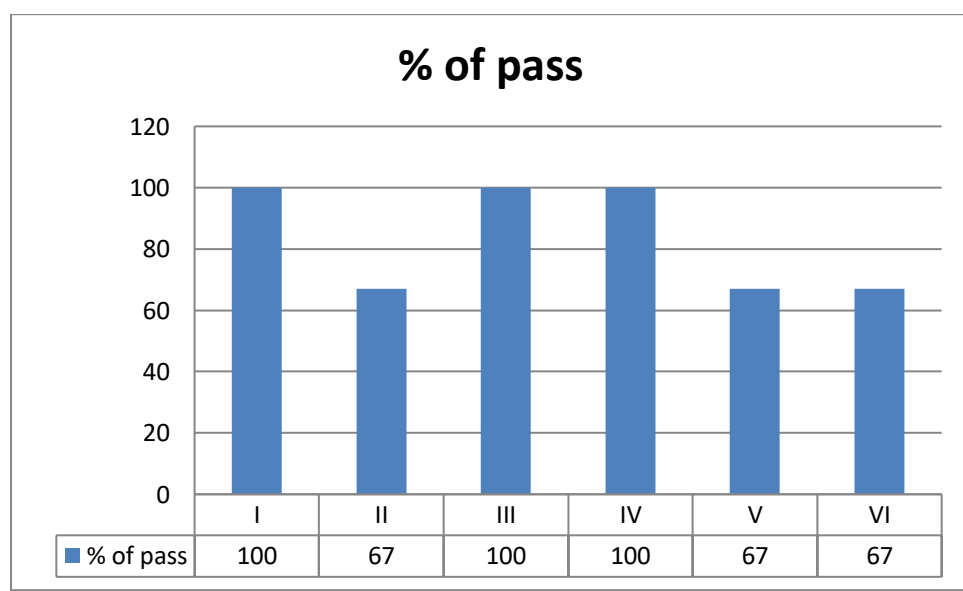
- Student Performance assessed through internal and external exams.
- Students Progression Register maintained for year wise progression
- Counseling sessions conducted and recorded to assess their performance.
- The II B.Sc (MPCs) group is allotted to the Department of Physics for Ward counseling for the academic year 2019-2020. For this, apart from regular class work, counseling classes are taken on various areas i.e., Personality Development, Carrere counseling, SWOT analysis with which to identify the various factors that may influence the accomplishments of the students. On the basis of theses one can develop effective strategies that would help in achieving their objectives.

PROGRAMME OUTCOMES (POs) :

- Apply principles/laws of physics to solve the physical problems.
- Identify/formulate the complex physics problems.
- Design the solutions for physics problems.
- Conduct experiments in physics and interpret the data.
- Use the modern tools to learn the physics.
- Take the responsibility for physics practice.
- Demonstrate the physics knowledge for sustainable development.
- Use ethical principles and norms of physics practice.
- Function effectively as individual as well as in a team.
- Communicate the physics effectively.
- Demonstrate the knowledge in physics to manage the physics projects effectively.
- Lifelong learning of physics.

➤ 1. Result Analysis:

| S.NO | Sem | Appeared | Passed | Absent | Fail | % of Pass |
|------|-----|----------|--------|--------|------|-----------|
| 1.   | I   | 04       | 04     | 01     | Nil  | 100       |
| 2.   | II  | 04       | 02     | 01     | 01   | 67        |
| 3.   | III | 04       | 03     | 01     | Nil  | 100       |
| 4.   | IV  | 04       | 03     | 01     | Nil  | 100       |
| 5.   | V   | 03       | 02     | Nil    | 01   | 67        |
| 6.   | VI  | 03       | 02     | Nil    | 01   | 67        |



## 2.7 Student Satisfaction Survey:

- Student Feedback system have been implemented on various parameters in improving the standards of oneself and institution.
- Feed back on course for the improvement of course content from final year students.
- Feedback on faculty to analyse faculty performance.
- Parents Feedback for overall constructive development of the institution.

### Criterion III: Research, Innovation and Extension

- 3.1 Promotion of Research Facilities
- 3.2 Resource mobilization of Research
- 3.3 Innovation eco system
- 3.4 Research publications and Awards
- 3.5 Consultancy
- 3.6 Extension Activities
- 3.7 Collaboration

### 3.3 Innovation eco system

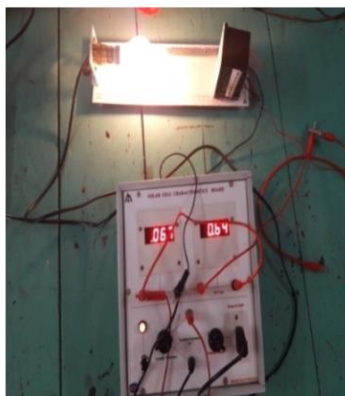
- Guest lectures and subject related programmes conducted in the department to motivate and inspire the students towards higher levels of education and research.
- The Department of Physics organized the National Science Day on 28.02.2020 on the theme “Women in Science”. The respected Principal, faculty of all disciplines and the students are participated in the programme. The head of the institution conveyed that every student should have passionate on science and advised to grow well. Faculty of Physics presented an article on Raman Effect and explained the significance of science in our daily life. Related to the theme Women in Science, the B.Sc. (MPCs) students briefed of their views about significance and the need of encouraging the women in higher education by manifesting the famous women scientists throughout the world in the field of science.
- On the eve of National Science Day, The Department of Physics conducted a science exhibition in the laboratory by displaying the apparatus related to various branches of physics i.e. Mechanics, Optics, Thermodynamics, Electricity & Magnetism, Electronics and Renewable Energy to the students of B.A, B.COM and B.Sc. (MZC) groups to motivate and inspire them towards science. The faculty of physics explained the needy of Renewable Energy sources i.e. solar energy, Wind energy, Tidal energy and Ocean thermal energy for the future generations. Along with the students the respected Principal, faculty of all disciplines visited and showed their curiosity to know the functioning of every apparatus and conveyed their happiness about exhibition.



➤ National Science Day

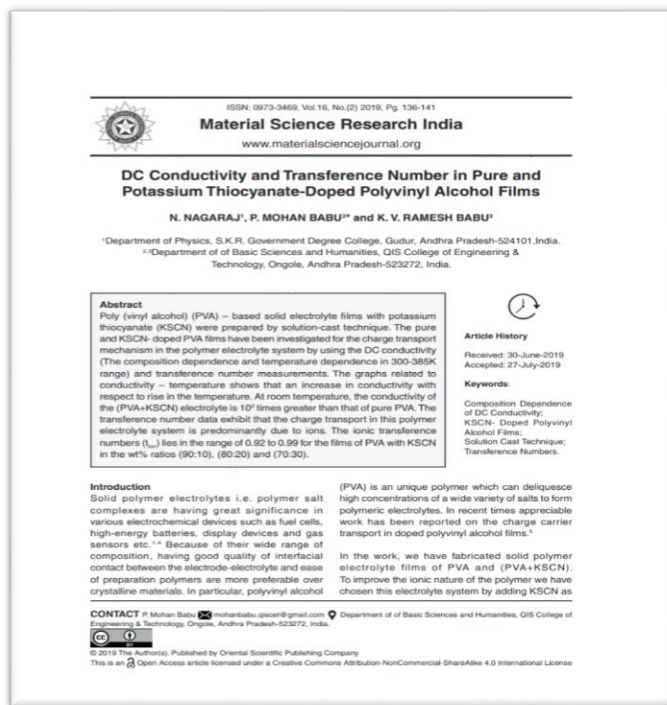


➤ Science Exhibition:



### 3.4 Research publications and Awards:

| S.NO | Published Research Paper                                                                                | Name of the Journal             | Volume                                                  |
|------|---------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------|
| 1.   | DC Conductivity and Transference Number in Pure and Potassium Thiocyanate-Doped Polyvinyl Alcohol Films | Material Science Research India | ISSN: 0973-3469,<br>Vol.16, No.(2) 2019,<br>Pg. 136-141 |

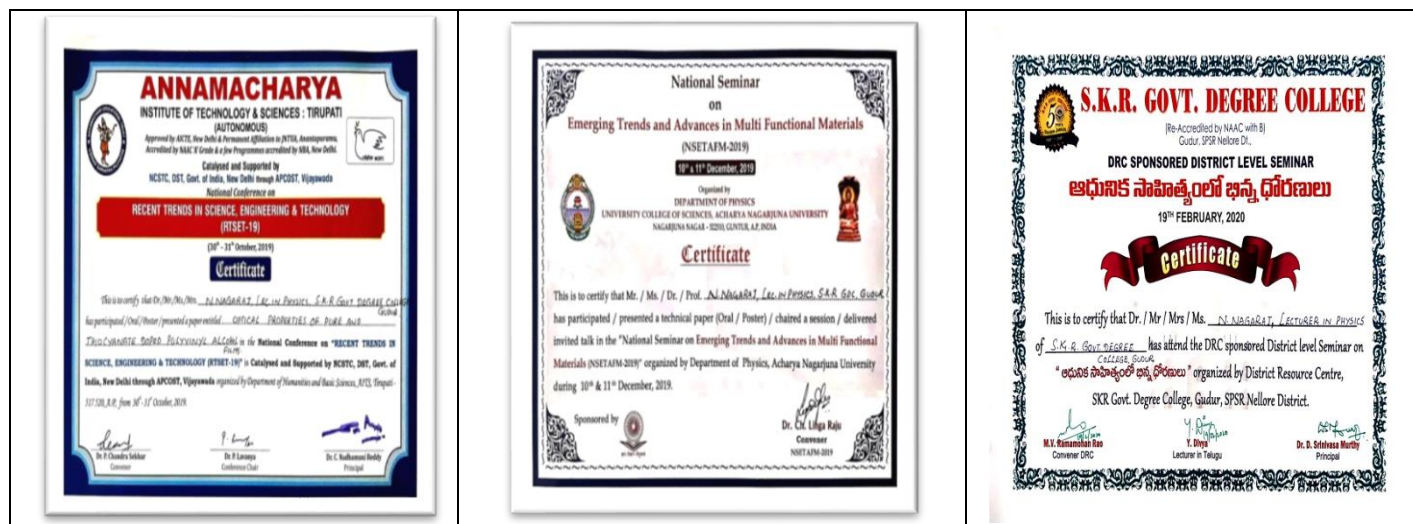




### 3.6 Extension Activities:

#### ➤ Participation in Seminars/Conferences/Workshops

| S.NO | Seminar/Conference/Work shop | Topic                                                     | Date                                              | Venue                                                                  |
|------|------------------------------|-----------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------|
| 1.   | National Conference          | Recent Trends in Science, Engineering & Technology.       | 30 <sup>th</sup> – 31 <sup>th</sup> October 2019  | Annamacharya Institute of Technology & Sciences (Autonomous) Tirupati. |
| 2.   | National Seminar             | Emerging Trends in Advances in Multi Functional Materials | 10 <sup>th</sup> – 11 <sup>th</sup> December 2019 | Acharya Nagarjuna University, Department of Physics, Guntur.           |
| 3.   | DRC Sponsored Seminar        | ఆధునిక సాహిత్యంలో భిన్న ధోరణులు                           | 19.02.2020                                        | S.K.R Govt Degree College, Gudur, SPSR Nellore Dist.                   |



## CRITERIAN IV: Infrastructure and Learning Resources

4.1 Physical Facilities

4.2 Library as a Learning Resource

4.3 IT Infrastructure

4.4 Maintenance of Campus Infrastructure

#### 4.1 Physical Facilities

- The Department has staff room with Departmental library.
- Having one laboratory equipped with latest instruments according to the CBCS syllabus.
- Recently equipped instruments are
  1. Stefan's Radiation constant apparatus
  2. Searle's apparatus for thermal conductivity
  3. Stefan's law apparatus
  4. I-V Characteristics of Solar cell
  5. Study the characteristics of Wind
  6. Apparatus to study the performance of a solar cell.
- Smart class room with Virtual class facility
- ICT enabled Digital class rooms.



## 4.2 Library as a Learning Resource

- The Departmental library having books, journals and subject related learning materials which enable students to acquire information, knowledge and skills required for their course.
- The ICT and Virtual mode learning resources available in the smart class room facilitate the students access to technology and information retrieval on current and relevant issues.



Department Library

### 4.3 IT Infrastructure

The Department having:

- Smart class room with Virtual class facility
- ICT enabled Digital class rooms.



Smart class room with Virtual class facility



## CRITERIA V: Student Support and Progression

### 5.1 Student Support

1. Bridge course
2. Ward Counselling
3. Remedial coaching

### 5.2 Student Progression

### 5.3 Student Participation and Activities

### 5.4 Alumni Engagement

## 5.1 Student Support

### ➤ Bridge Course:

The Bridge course for I B.Sc. (MPC &MPCS) students on “Mechanics” was conducted to support the students to have a smooth transition to higher level of studies.

| S.NO | Name of Student   | Group | Number of classes conducted | Date                           |
|------|-------------------|-------|-----------------------------|--------------------------------|
| 1.   | Ch. Venkateswarlu | MPC   | 07                          | 21.06.2019<br>TO<br>29.06.2019 |
| 2.   | Ch. Naveen        | MPCS  |                             |                                |
| 3.   | G. Venkateswarlu  |       |                             |                                |
| 4.   | J . Ganesh        |       |                             |                                |
| 5.   | Sk. Akhila        |       |                             |                                |
| 6.   | Ch. Gnesh         |       |                             |                                |

Topics covered under Bridge course on Mechanics:

1. Newton laws
2. Types of Motions
3. Rigid body
4. Elastic constants
5. Kepler laws
6. Theory of Relativity

### Ward counseling:

- Counseling not only supports the students to make decisions pertaining to their professional career, but it also makes them confident and mentally prepare them for societal hardships. Teacher support the student to recognize their strengths, sharpen their interests and provides them with career options to explore their dreams.
  
- The II B.Sc (MPCs) group is allotted to the Department of Physics for Ward counseling for the academic year 2019-2020. Under this programme apart from regular class work, counseling classes are taken on various areas i.e., Personality Development, Carrere counseling, SWOT analysis with which to identify the various factors that may influence the accomplishments of the students. On the basis of theses one can develop effective strategies that would help in achieving their objectives.

## 5.2 Student Progression

- M. Govardhan, III B.Sc(MPCs) secured 34<sup>th</sup> rank in Sri Venkateswara University PG CET-2020 , Tirupathi and 20<sup>th</sup> rank in Vikrama Simhapuri University PG CET-2020 , SPSR Nellore for the admission into PG course in Physics .
- N.Sasi kumar, III B.Sc(MPCs) secured 42<sup>nd</sup> rank in Vikrama Simhapuri University PG CET-2020 , SPSR Nellore for the admission into PG course in Physics

The screenshot displays the SVUCET-2020 Rank Card and Results page. The header includes the SVUCET-2020 logo and text: "SVUCET-2020 SRI VENKATESWARA UNIVERSITY COMMON ENTRANCE TEST Conducted by DIRECTORATE OF ADMISSIONS For Admission into Postgraduate Courses for the Academic year 2020-2021". Below the header, it shows "Site Visitors : 368973" and "Online Users :". On the left, there is a sidebar with links: Home, Instructions to fill Online Application, Admission Information Brochure, Online Payment, Print Application, Download Hall Ticket, View Results, and Get Application No. The main content area features a "Rank Card" section with a green header. It contains input fields for "Hall Ticket No." (1290125) and "Date of Birth" (04/06/1999), with a "View Rank Card" button below. Below the Rank Card, the "RESULTS" section displays: "Hall Ticket No: 1290125", "Name: GOVARDHAN MANGALAPURI", "Test Name: 29-Physics", "Rank: 34", and "Result: PASS".

| SVUCET-2020                                                                                                                   |                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SRI VENKATESWARA UNIVERSITY COMMON ENTRANCE TEST                                                                              |                                                                                                                                                                               |
| Conducted by<br>DIRECTORATE OF ADMISSIONS                                                                                     |                                                                                                                                                                               |
| For Admission into Postgraduate Courses for the Academic year 2020-2021                                                       |                                                                                                                                                                               |
| Site Visitors : 368973                                                                                                        | Online Users :                                                                                                                                                                |
| <a href="#">Home</a>                                                                                                          | <b>Rank Card</b><br>Hall Ticket No : 1290125<br>Date of Birth : 04/06/1999<br><small>Date of Birth Format(DD/MM/YYYY) eg.27/07/1984</small><br><a href="#">View Rank Card</a> |
| <a href="#">Instructions to fill Online Application</a>                                                                       |                                                                                                                                                                               |
| <a href="#">Admission Information Brochure</a>                                                                                |                                                                                                                                                                               |
| <a href="#">Online Payment</a>                                                                                                |                                                                                                                                                                               |
| <a href="#">Print Application</a>                                                                                             |                                                                                                                                                                               |
| <a href="#">Download Hall Ticket</a>                                                                                          |                                                                                                                                                                               |
| <a href="#">View Results</a>                                                                                                  |                                                                                                                                                                               |
| <a href="#">Get Application No</a>                                                                                            |                                                                                                                                                                               |
| <b>RESULTS</b><br>Hall Ticket No: 1290125<br>Name: GOVARDHAN MANGALAPURI<br>Test Name: 29-Physics<br>Rank: 34<br>Result: PASS |                                                                                                                                                                               |

### 5.3 Student Participation and Activities

➤ National Science Day:

The Department of Physics organized the National Science Day on 28.02.2020 on the theme “**Women in Science**”. The respected Principal, faculty of all disciplines and the students are participated in the programme. The head of the institution conveyed that every student should have passionate on science and advised to grow well. Faculty of Physics presented an article on Raman Effect and explained the significance of science in our daily life. Related to the theme Women in Science, **the B.Sc. (MPCs) students participated and briefed** of their views about significance and the need of encouraging the women in higher education by manifesting the famous women scientists throughout the world in the field of science



## CRITERIAN VI: Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.2 Strategy Development and Deployment

6.3 Faculty Empowerment Strategies

6.4 Financial Management and Resource Management

6.5 Internal Quality Assurance System

## 6.1 Institutional Vision and Leadership

- The department has its Vision, Mission, objectives and values to accomplish the Institutional Vision:
- Vision of the department:
  - The department wishes to provide the most successful methods to teach proper knowledge of physics with basic principles for theoretical and Practical Physics. Which will in due course benefit the students to excel their practical and scientific skills towards higher levels of education.
- Mission:
  - Provide a standard level of education in the field of physics to the students and promote them towards higher levels of education.
  - Provide students with basic skills in solving problems in scientific and technical area of interest.
  - Promoting scientific research in student's creativity and make them exposure to current technologies.
  - To provide individual attention and enable character building.

➤ Objectives:

- Maintain the quality of teaching with highly qualified teachers and modern facilities, to be able to fully develop the community to the best of our ability.
- Work to develop new specialties, which make to capacity in work areas
- Support the graduate program for master's and doctoral degrees.

➤ Values:

As we serve our community, we strive to hold to the following values:

- Striving for excellence in performance-based teaching and research
- Maintaining high levels of professionalism and integrity
- Creating an environment of active learning and effective communication
- Striving for the highest qualities in all aspects of our work



## 6.2 Strategy Development and Deployment

- Contributed in formulation of academic and administrative policies, procedures and strategies as a convener/ member in many institutional committees for the effective functioning of the institution.

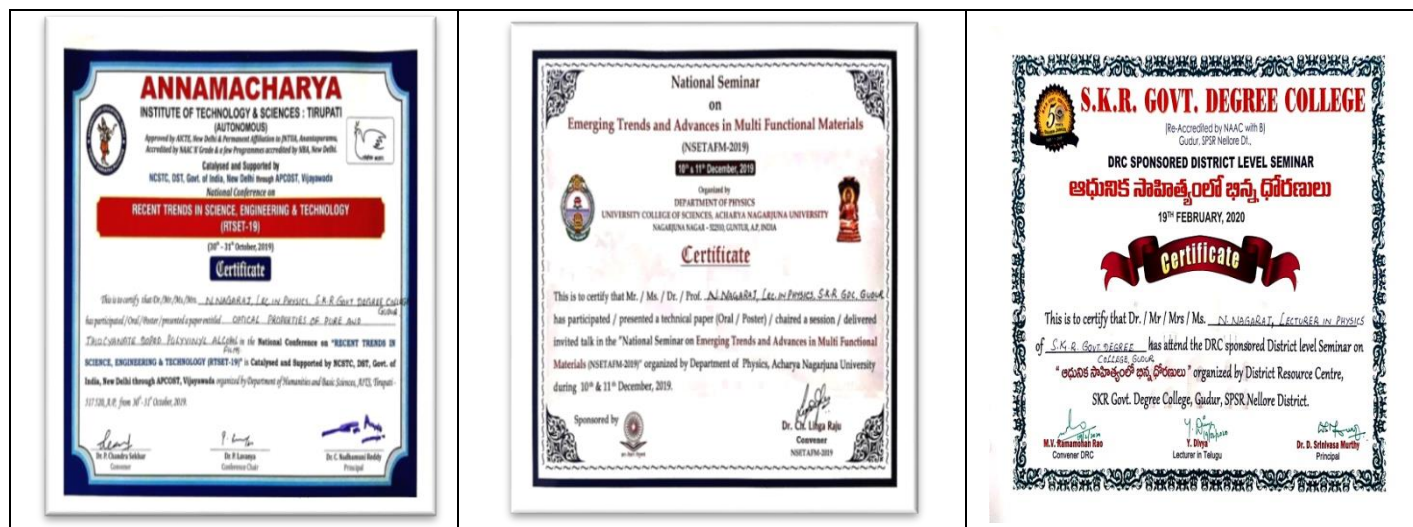
| S.NO | Institutional Committee   | Convener/Member |
|------|---------------------------|-----------------|
| 1.   | Student Union             | Member          |
| 2.   | Audio Visual              | Convener        |
| 3.   | Special fee               | Convener        |
| 4.   | Poor Boy's fund           | Convener        |
| 5.   | UGC                       | Convener        |
| 6.   | Scholarships              | Member          |
| 7.   | Purchasing                | Member          |
| 8.   | IQAC/Feedback             | Member          |
| 9.   | Eco club                  | Member          |
| 10.  | Academic Linkages         | Member          |
| 11.  | Anti ragging & Discipline | Member          |
| 12.  | Attendance                | Member          |
| 13.  | DRC                       | Member          |
| 14.  | Research & Consultancy    | Member          |
| 15.  | RUSA                      | Member          |
| 16.  | JKC                       | Member          |



## 6.3 Faculty Empowerment Strategies

- Participated in seminars /workshops / conferences for professional development .

| S.NO | Seminar/Conference/Work shop | Topic                                                     | Date                                              | Venue                                                                  |
|------|------------------------------|-----------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------|
| 1.   | National Conference          | Recent Trends in Science, Engineering & Technology.       | 30 <sup>th</sup> – 31 <sup>th</sup> October 2019  | Annamacharya Institute of Technology & Sciences (Autonomous) Tirupati. |
| 2.   | National Seminar             | Emerging Trends in Advances in Multi Functional Materials | 10 <sup>th</sup> – 11 <sup>th</sup> December 2019 | Acharya Nagarjuna University, Department of Physics, Guntur.           |
| 3.   | DRC Sponsored Seminar        | ఆధునిక సాహిత్యంలో భిన్న ధోరణులు                           | 19.02.2020                                        | S.K.R Govt Degree College, Gudur, SPSR Nellore Dist.                   |



## 6.5 Internal Quality Assurance System

- Participated in IQAC related activities for implementing its initiatives to increase the institutional quality in all aspects
- Participated in academic and administrative auditing related activities in the institution.
- All the activities in the department are documented as per NAAC criteria.

## CRITERIAN VII: Institutional Values & Best Practices

7.1 Institutional Values and Social Responsibilities

7.2 Best Practices

7.3 Institutional Distinctiveness

## **7.1 Institutional Values and Social Responsibilities**

The department strives to hold to the following values:

- Striving for excellence in performance-based teaching and research
- Maintaining high levels of professionalism and integrity
- Creating an environment of active learning and effective communication
- Striving for the highest qualities in all aspects of our work

## 7.2 Best Practices

- Sri.Somasekhar garu, Rtd. Lecturer in Physics, Nellore donated an amount of Rs.10,000/- to the college and the amount was made in the form of fixed deposit through joint account in the SBI bank. He was asked to give cash prize award with the interest deposited in the bank to the first comer in second year Physics every year.
- The award was given to **N.Sasi kumar, Hall ticket No. 173129004**  
**III B.Sc (MPCs)**, secured highest marks in second year physics for the academic year 2019-2020.

### 7.3 Institutional Distinctiveness

- The department has keen interest to give coaching for PG entrance. The studentss securing good ranks in PG entrance examinations conducted by various universities every year.
- M. Govardhan, III B.Sc(MPCs) secured 34<sup>th</sup> rank in Sri Venkateswara University PGCET-2020 , Tirupathi and 20<sup>th</sup> rank in Vikrama Simhapuri University PG CET-2020 , SPSR Nellore for the admission into PG course in Physics and joined in S.V University campus.
- N. Sasi Kumar, III B.Sc(MPCs) secured 42<sup>nd</sup> rank in Vikrama Simhapuri University PG CET-2020 , SPSR Nellore, for the admission into PG course in Physics and joined in V.S University campus.