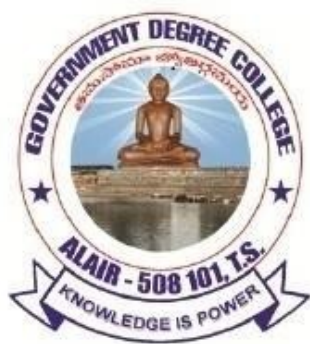


# Government Degree College, Alair

## Physics Departmental Profile



*“The study of Physics is also an adventure. You will find it challenging, sometimes frustrating, occasionally painful, and often richly rewarding”*

*-Hugh D. Young*

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Profile of **PHYSICS** Department, GDC ALAIR

### **DEPARTMENT HISTORY:**

The Department of Physics is introduced in the year 2008, at the same time of inception of the college. There were two separate groups in the Bachelor of Sciences, MPC and MPCS. Since last year they are merged and called as B.Sc Physical Sciences. The Department of Physics creates and disseminates new knowledge; the department offers courses in Physics at the graduate level that will help, prepare the students for professional careers in Sciences, Education, Technology, Research.

### **VISION:**

*“Teachers who love teaching teach students love learning”*

The department of Physics aspires to witness the manifestation of Physics Department into a powerful department creating passion and curiosity in the young minds to pursue higher education in Physics.

### **MISSION:**

1. To encourage its students to pursue higher education in Physics
2. To render its students, quality education in physics.
3. To create a pleasant learning atmosphere with theory and experiments.
4. To refer to as many sources of teaching and learning, making use of modern technology.
5. To use ICT for teaching.

## **HIGHLIGHTS OF THE DEPARTMENT:**

### **PROFILE OF DEPARTMENT AS PER NAAC-7 POINT CRITERIA**

This report is prepared based on the pattern suggested by the NAAC having key aspects.

#### **I. CURRICULAR ASPECTS**

### **CURRICULUM DESIGN AND DEVELOPMENT**

The department follows Mahatma Gandhi University syllabus as the college is affiliated to Mahatma Gandhi University Nalagonda

### **CURRICULAR PLANNING AND IMPLEMENTATION**

#### **GROUPS AND COMBINATIONS OFFERED IN THE DEPARTMENT:**

B.Sc (Physical Sciences)

#### **SYLLABUS FOR UNDER GRADUATE LEVEL : B.SC (PHYSICAL SCIENCES)**

##### **CBCS INTRODUCTION**

The Government of Telangana has introduced Choice Based Credit System (CBCS) in the state in all universities including the Mahatma Gandhi University to which this college is affiliated from the academic year 2008.

### **ACADEMIC FLEXIBILITY**

#### **CBCS SYSTEM**

Recently introduced CBCS is giving more scope on flexibility of choosing of subjects as per students' interest. This gives scope to the department in identifying key areas where the faculty is proficient.

**INTRODUCTION OF CERTIFICATE COURSES: NO**

**CURRICULUM ENRICHMENT**

**HVPE:**

Inculcating Human Values and Professional Ethics to the students

**TSKC:**

The department is closely following the TSKC or JKC curriculum is providing additional skill which is useful in gaining employment such as soft skills, language skills and communication skills.

**GENDER SENSITISATION:**

Offering Gender Sensitization and creating awareness among the students about the Gender Equality.

**ENVIRONMENTAL SCIENCE:**

The department is involved in teaching Environmental Science along with the other Science departments.

**FEEDBACK SYSTEM**

The students' feedback is collected by using a structured questionnaire to a random sample of students constituting each class, on every teacher teaching respective class every year.

SNo	Name of the Teacher	FEEDBACK SAMPLES COLLECTED				
		2015-16	2016-17	2017-18	2018--19	2019 -20
1	Sumalatha	15				
2	Sumalatha		15			
3	Sumalatha			15		
4	K. Haritha				15	
5	K. Haritha					15

## Profile of **PHYSICS** Department, GDC ALAIR

Feedback Evaluation:

Average Feedback Total score obtained for the five years 2015-16 to 2019-20 is **4.542**

## **II. TEACHING LEARNING AND EVALUATION**

### **STUDENT ENROLMENT AND PROFILE**

#### **DETAILS OF ADMISSIONS FOR THE ACADEMIC YEAR 2020-21**

Nameofthe Course	Applications received	Selected	Enrolled	
			Male	Female
B.Sc (MPCs) E/M	22	22	15	7
B.Sc (MPC) E/M	2	2	1	1
B.Sc (MCCs) E/M	1	1	0	1

#### **LEVEL OF LANGUAGE PROFICIENCY OF STUDENTS:**

The students are mostly from rural background yet the medium of instruction is English and the students are able to learn to write the subject with the same medium of English.

#### **ADMISSION:**

The students have to pass intermediate or 10+2 in the subjects of Maths, Physics, Chemistry. There is no condition of having any percentage of marks but qualifying the intermediate examination is sufficient. At present to join in B.Sc (Physical Sciences) degree course, there is no entrance test system and students must have passed MPC course in intermediate or Diploma (Polytechnic) course.

#### **DOST: DEGREE ONLINE SERVICES OF TELANGANA, W.E.F. ACADEMIC YEAR 2016-17:**

From AY 2016-17, the degree admission system made online in entire Telangana State. The admissions are allowed under all universities under one umbrella called DOST. The role of college in following reservations etc is minimized now.

## CATERING TO STUDENT DIVERSITY

### SOCIO ECONOMIC STATUS

Most of the students of this college are from poor economical background with parental little/no literacy. The students from rural areas of this region are majorly from backward classes as well as scheduled caste and schedule tribes. Most of the students' parental occupation is silk weaving. The pandemic has hit them badly.

### DIVERSITY OF STUDENTS

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B.Sc(Physicalsciences)	100%	0	0

#### Details of Students based on the gender they belong

Class B.Sc (MPC)	Strength particulars								
	I Year			II Year			III Year		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
2015-16	2	8	10	2	2	4	0	4	4
2016-17	8	7	15	3	3	6	2	2	4
2017-18	3	11	14	3	6	9	3	3	6
2018-19	6	2	8	3	11	14	3	6	9
2019-20	0	0	0	5	0	5	3	11	14
<b>Total</b>	18	28	46	16	22	37	11	26	37



**RESULT FOR FIVE YEARS FROM**

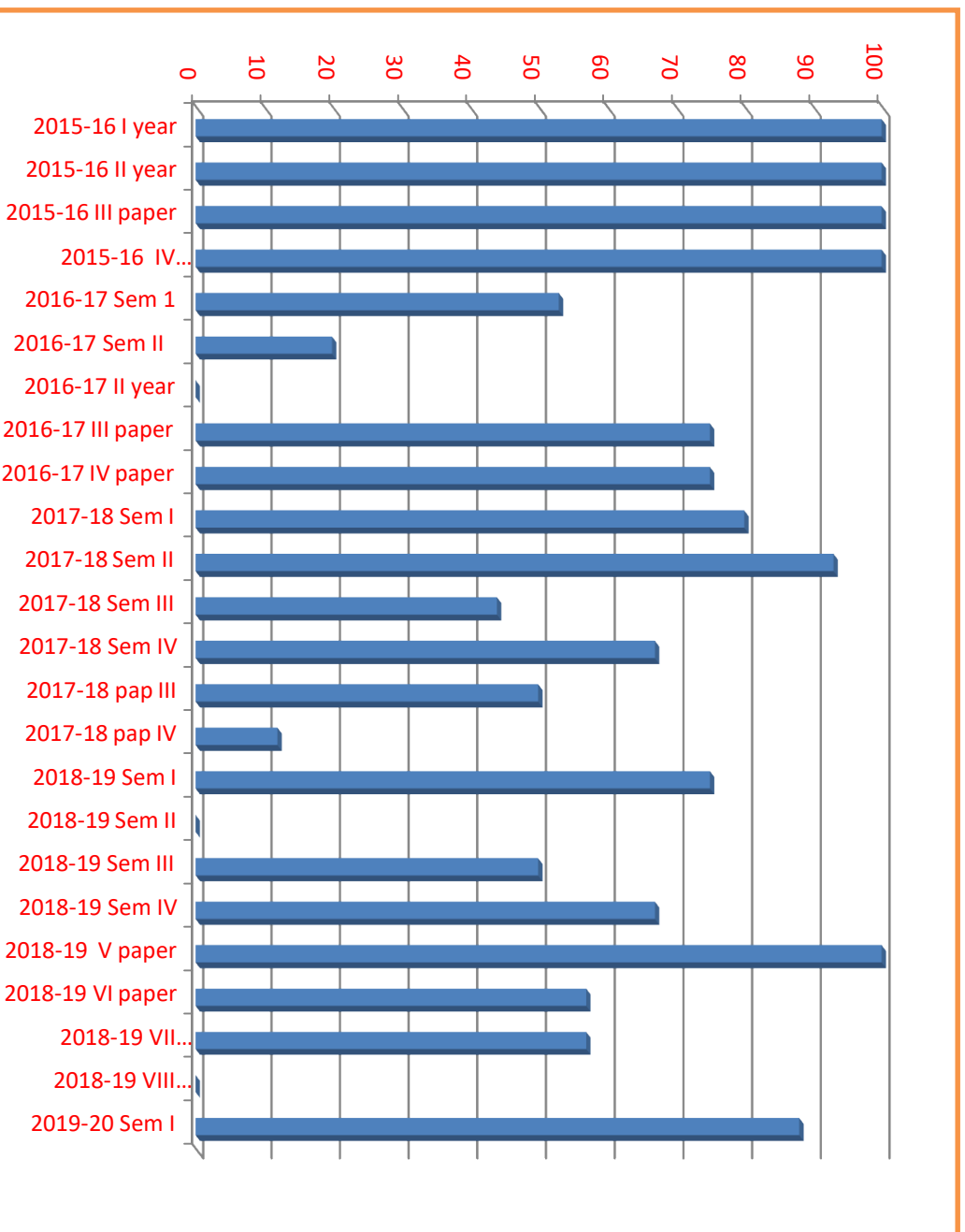
**2015-16 to 2019-20 of B.SC (Physical Sciences)**

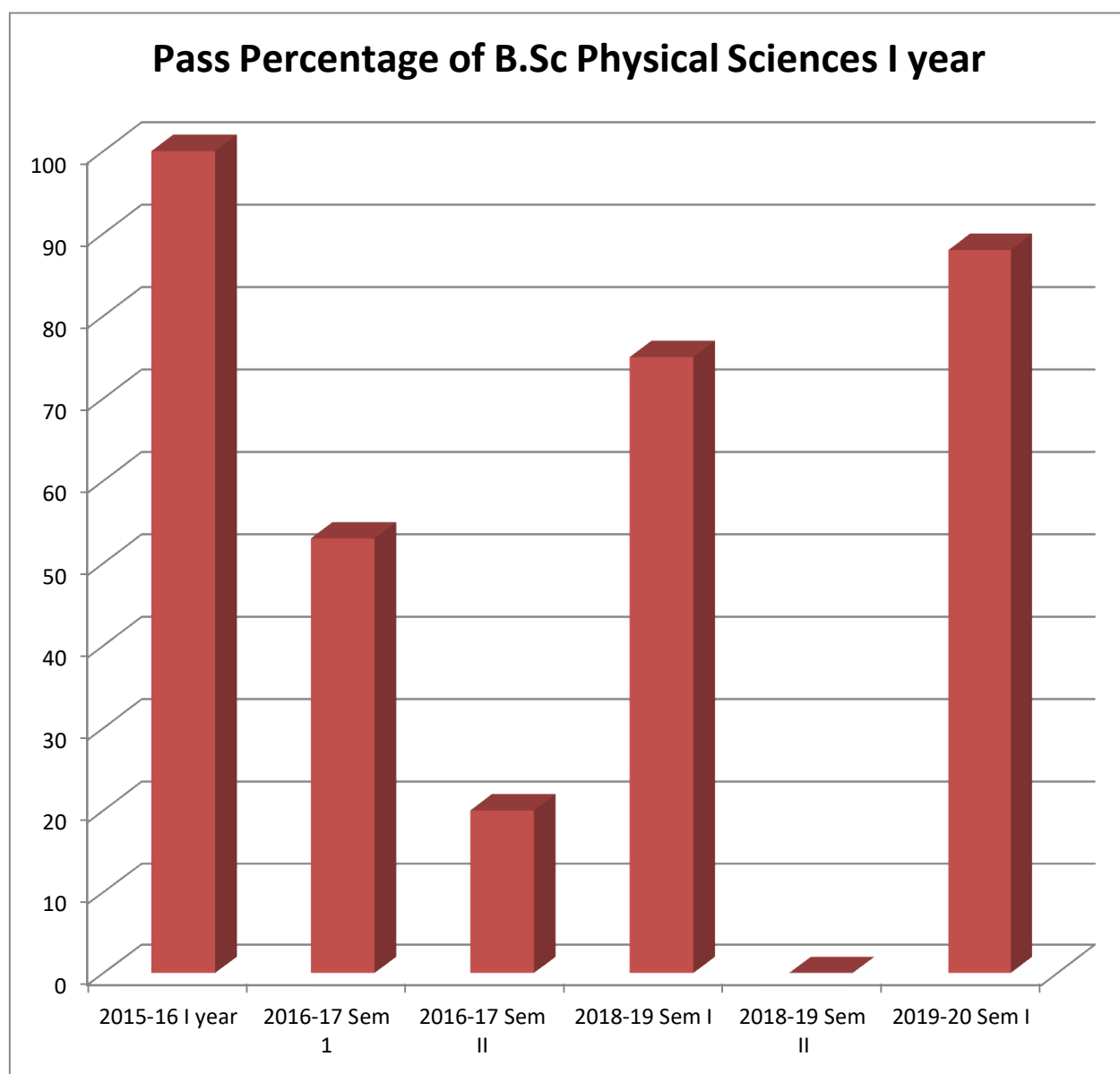
	PAPER	YEAR	NO.OF STUDENTS		Pass Percentage	
			Appeared	Passed		
<b>SUBJECT</b>	I	2015-16	07	07	100%	
	Sem-I	2016-17	15	8	53%	
	Sem-II		15	3	20%	
	Sem-I	2017-18	15	12	80%	
	Sem-II		14	13	93%	
	Sem-I	2018-19	8	6	75%	
	Sem-II		5	0	0%	
	II	2015-16	4	4	100%	
	II	2016-17	6	0	0%	
	Sem-III	2017-18	9	4	44%	
	Sem-IV		9	6	67%	
	Sem-III	2018-19	12	6	50%	
	Sem-IV		12	8	67%	
		Sem-III	2019-20	5	2	0%
		Sem-IV	2019-20	5	0	0%
	<b>Physics 3rd Year (Electromagnetism)</b>	III	2015-16	2	2	100%
III		2016-17	4	3	75%	
III		2017-18	6	3	50%	

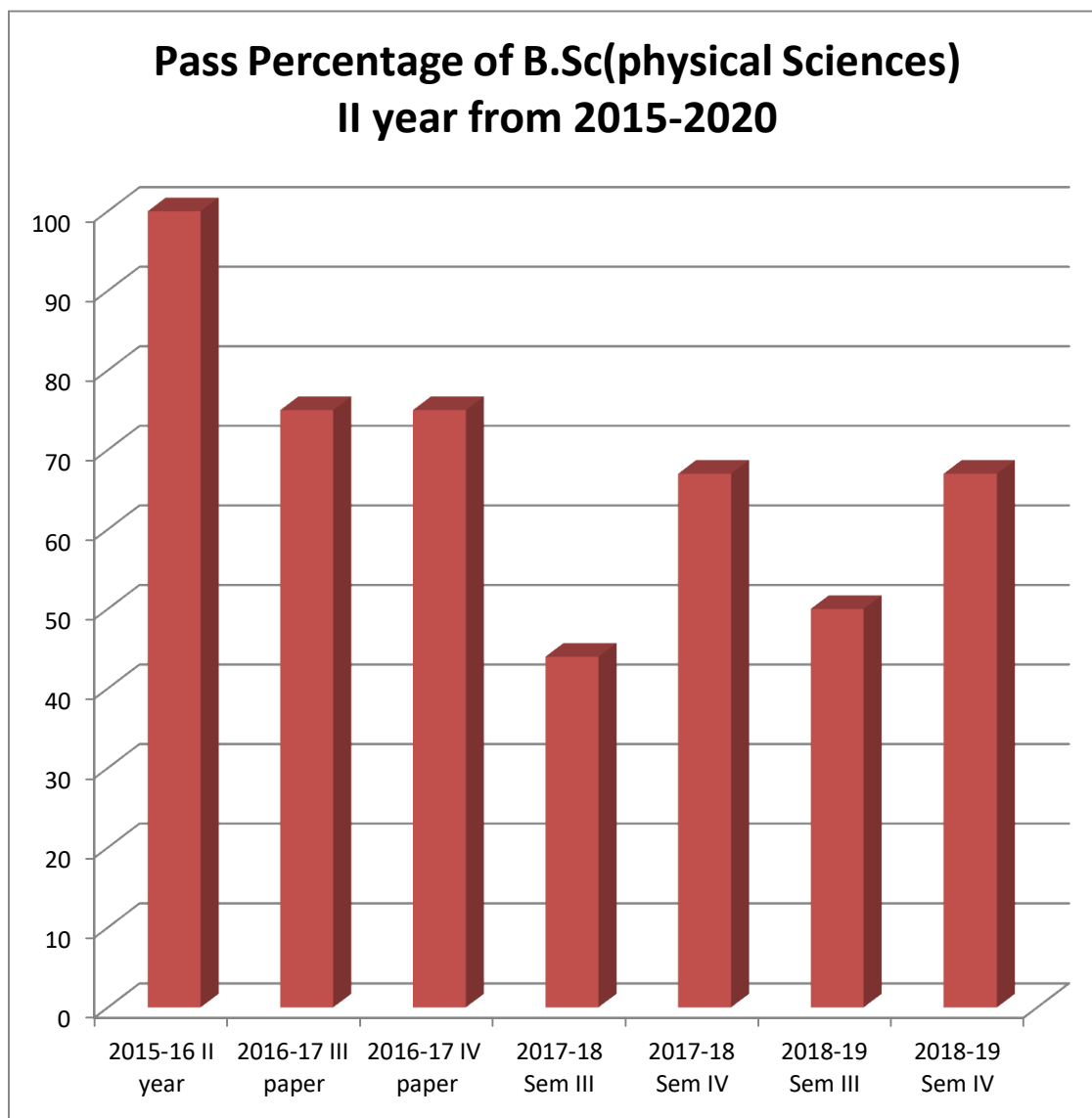
**Profile of PHYSICS Department, GDC ALAIR**

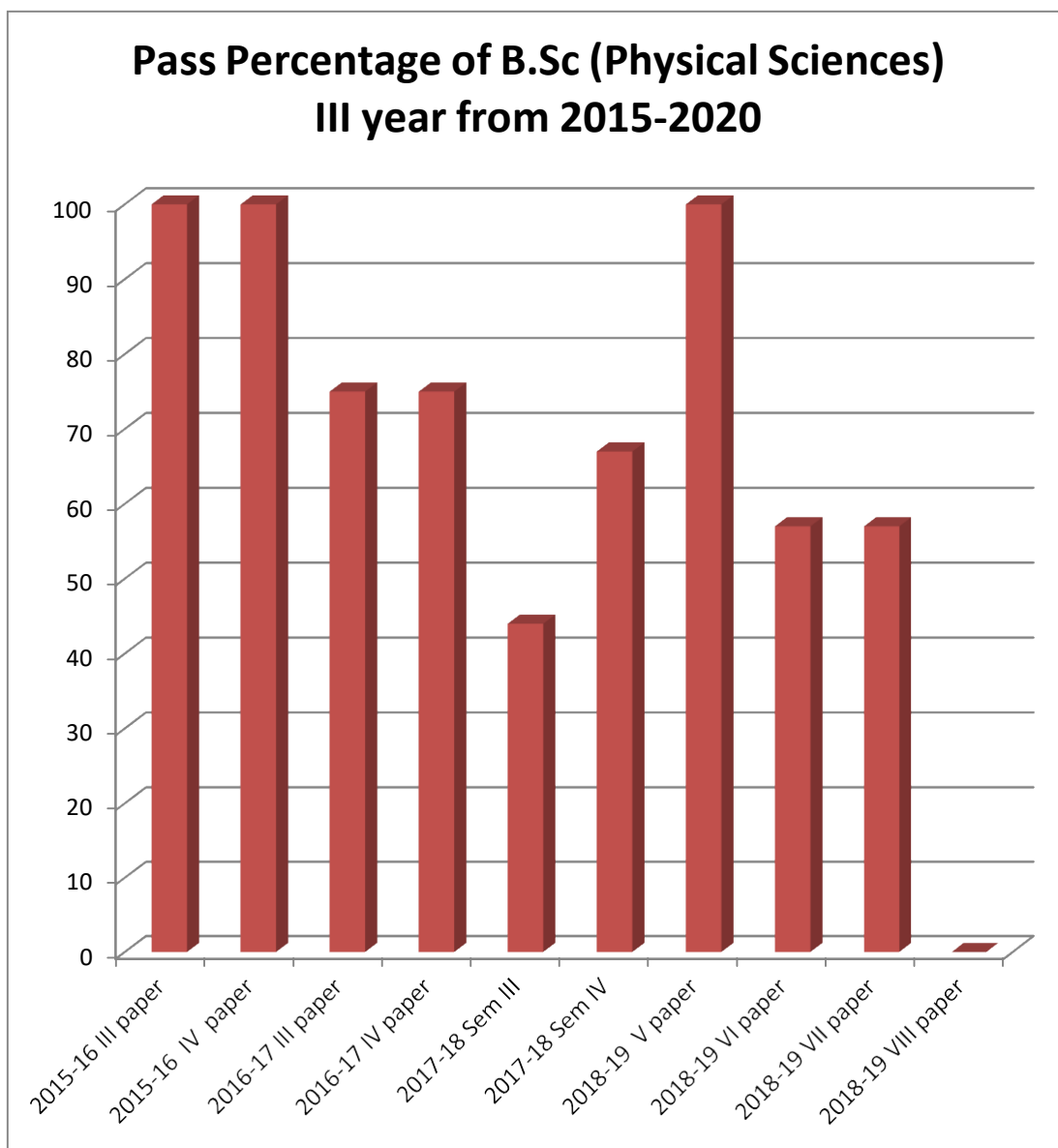
<b>And SSP)</b>	Paper-V		9	9	100%
	Paper-VI	2018-19	7	4	57%
	Paper-V	2019-20	12	9	75%
	Paper-VI	2019-20	12	7	63.5%
<b>Physics 3rd Year (Modern Physics and Basic Electronics)</b>	IV	2015-16	2	2	100%
	IV	2016-17	4	3	75%
	IV	2017-18	16	2	12%
	Paper VII	2018-19	7	4	57%
	Paper VIII	2018-19	7	0	0%
	Paper VII	2019-20	5	4	80%
	Paper VIII	2019-20	5	0	0%

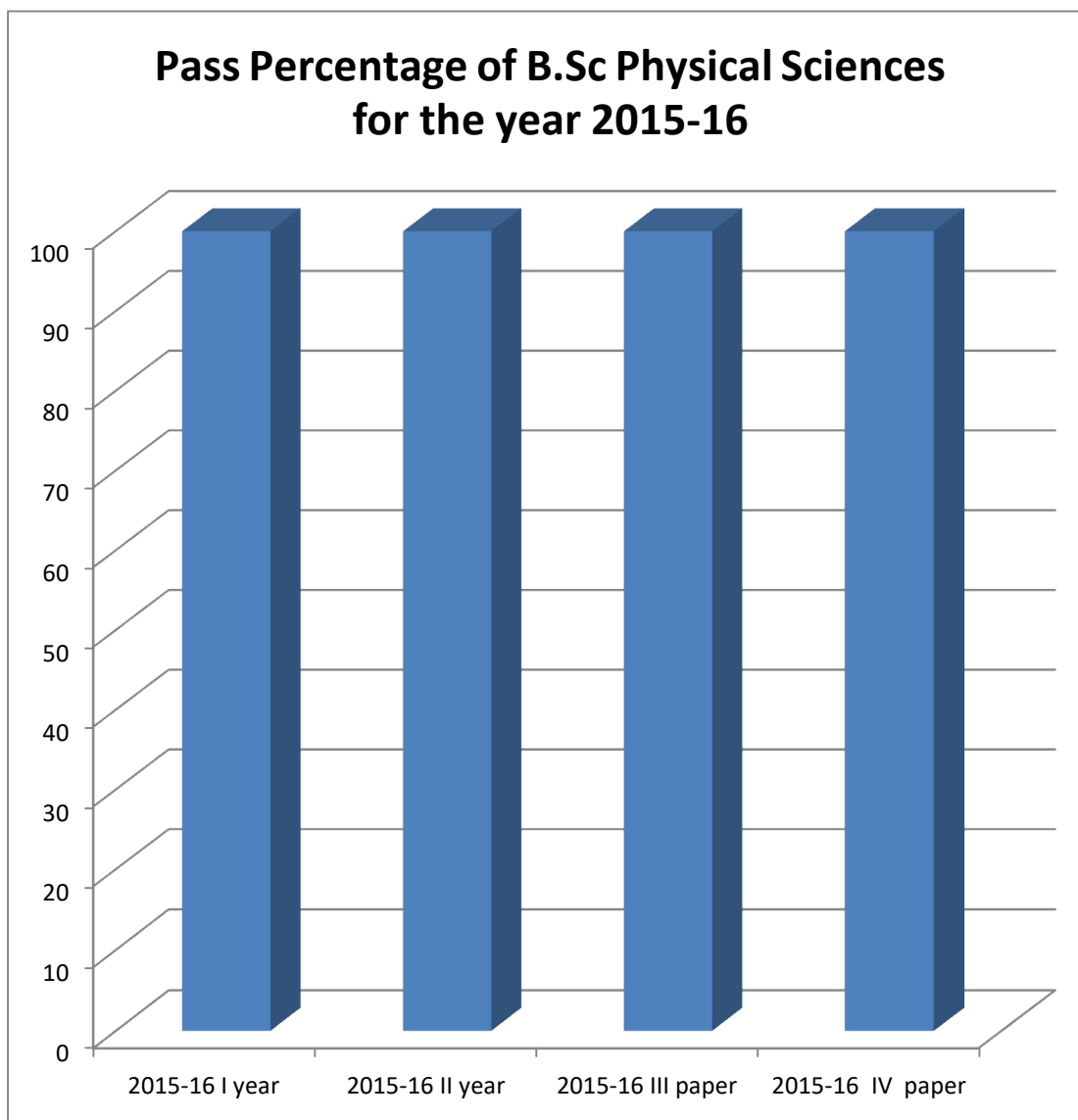
## B.Sc Physical Sciences Pass Percentage for the years 2015-2020

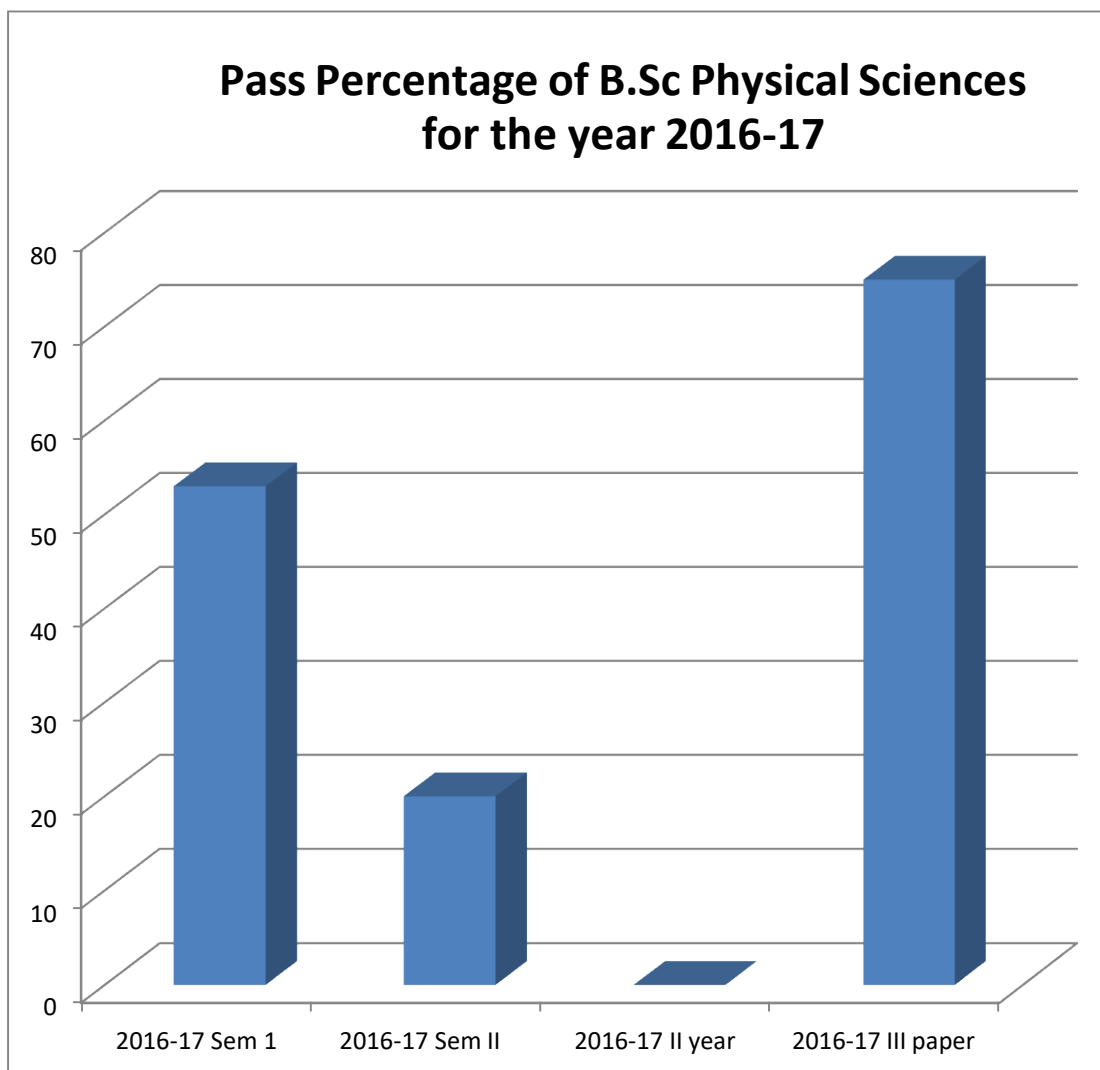




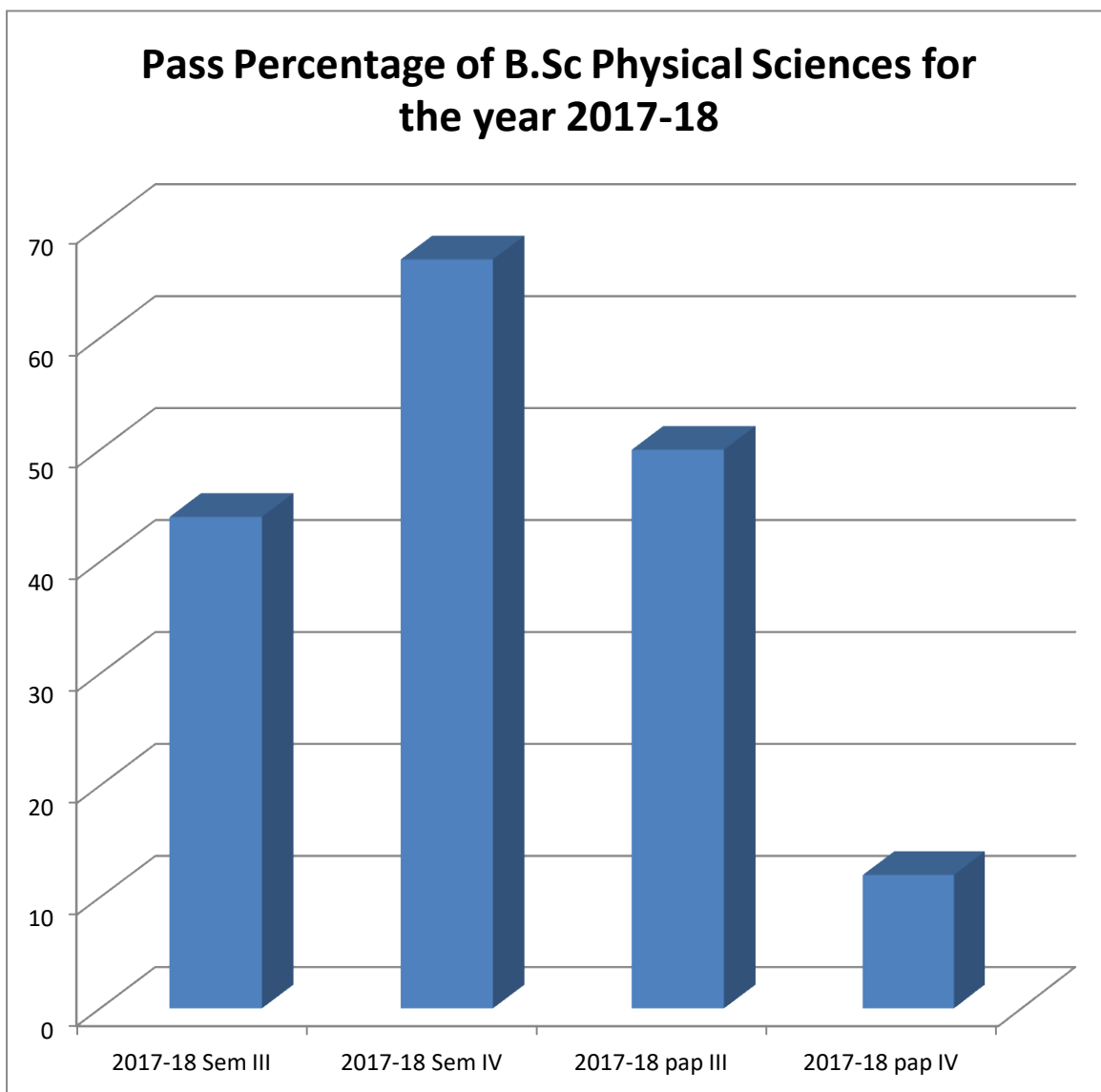


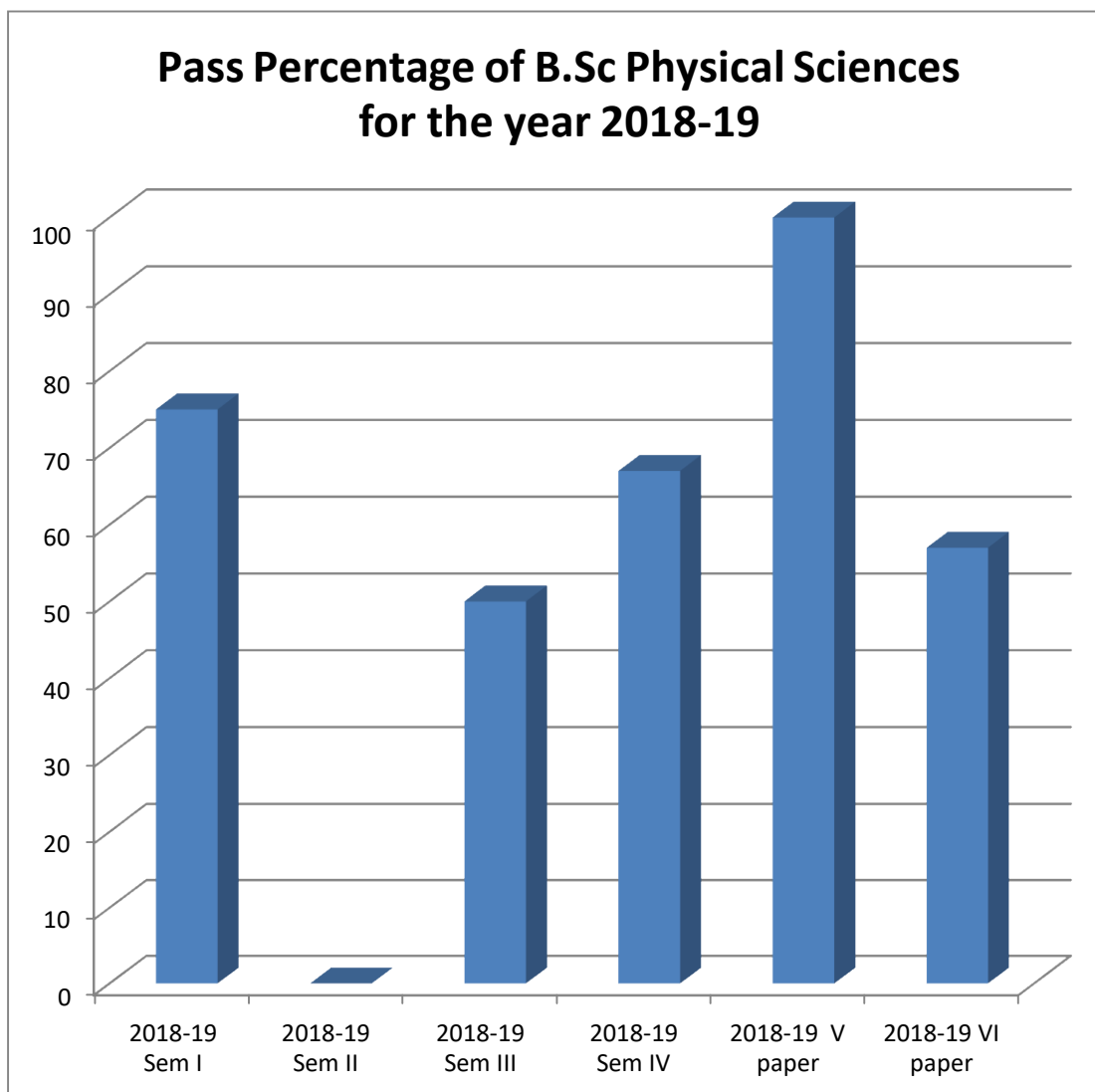




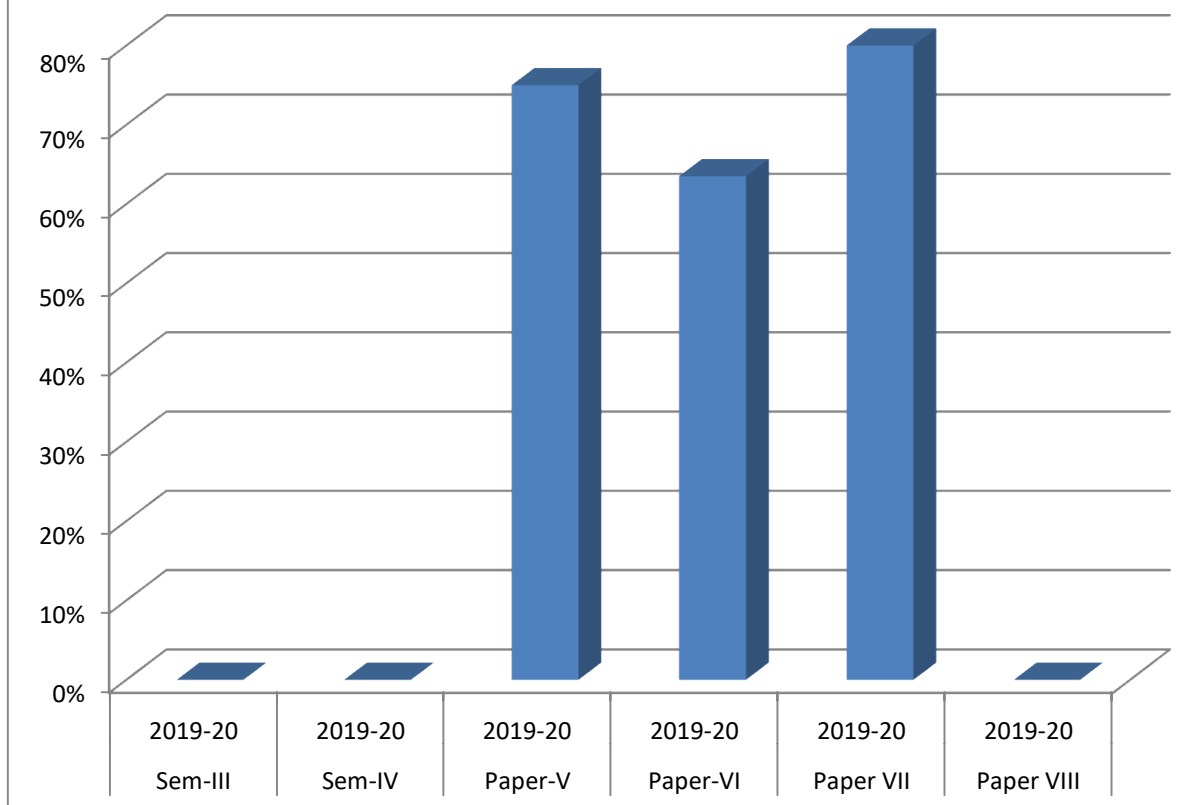








### Pass percentage of B.Sc Physical Sciences for the year 2019-20



## **TEACHING-LEARNING PROCESS**

### **FACULTY ACADEMIC RECORDS**

The staff maintains Teaching diaries, Synopsis and prepares Annual Academic plans to have more systematic approach. Departmental meetings are arranged every month to discuss various issues pertaining to academic as well as administrative matters the same will be recorded in resolutions book of the department.

The faculty of the department strictly adheres to the academic schedule as per the almanac furnished by the university. The time table is framed and workload is distributed among the staff as per the time table.

**1. TIME TABLE 2)TEACHING PLAN 3)TEACHING DAIRY 4)PPT 5)FIELD VISITS  
6)STUDYPROJECTS 7)ASSIGNMENTS 8)CHARTS 9)QUIZ 10)GROUP  
DISCUSSIONS 11)DEBATES 12)DIGITAL CLASSROOM 13)REMEDIAL  
COACHING FOR SLOW LEARNERS**

### **LEARNING RESOURCES**

The department of Physics is running a departmental library with minimum of 25 books which are in use for staff and students.

Central library can be made use of .

Internet facility in the central library can be made use of.

The department has acquired the following list of teaching learning tools

- ICT Tools (LCD Projector)
- T-SAT (MANA TV) Channel-Remote Learning Through Online
- Internet
- Blended Teaching Learning Method
- You tube Channels of faculty

### **MODERN TEACHING METHODS:**

Conducting of group discussions

Conduct of seminars by students

Arranging guest lectures

Giving study projects to students

## Profile of **PHYSICS** Department, GDC ALAIR

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Quiz competitions

### **STUDENT SEMINARS:**

The Department conducts student seminars in general, final year students in particular, in which the students actively participated and the same will be recorded in a separate files.

### **STUDY TOURS AND FIELD TRIPS:**

The Department is planned to arrange study tours and field trips to the students of Physics. Field trips to Electrical Substation, Electrical and Electronics items repairing centers, Universities and Research Centers, Infosys Campus.

### **STUDY PROJECTS OR TASKS GIVEN TO ADVANCE LEARNERS (STUDENTS):**

The meritorious and extraordinary students are assigned tasks such as involving them in study projects and research papers. They are taught latest developments in the Physics.

### **REMEDIAL COACHING FOR SLOW LEARNERS**

Remedial classes are arranged in the department every year to the academically slow learners, our staff actively participates in taking classes for them. These students are given extra coaching in various subjects and topics to improve their academic performance every year.

## **TEACHER QUALITY**

### **WORK LOAD DISTRIBUTION PER WEEK**

S.NO	Name of the Lecturer	Theory	Practical	Total
1.	K. Haritha	14	8	22

### **ACADEMIC PERFORMANCE INDICATORS (API):**

The teachers in the department are actively engaged in all activities as per the academic performance indices.

## **EVALUATION PROCESS AND REFORMS**

### **EVALUATION OF THE STUDENTS PERFORMANCE:**

The department conducts a **5-minute test** every day to the students on the previous day topic as a warm up exercise after which only the regular lecture begins, this has been the best practice of the department. Assignments are regularly given for all the years for assessing their performance. Marks lists are prepared and placed in a separate register.

5-MINUTE TESTS

ASSIGNMENTS

RECORDS

INTERNALS

PRACTICALS

UNIVERSITY EXAMS

CREDITS / CGPA

### **PARTICIPATION IN EXAMINATION WORK:**

The faculty of the department is extensively involved in the examination duties like Question Paper setting, External examiners and internal examiners for Practical Exams, invigilation.

### **REFORMS IN EVALUATION PROCESS**

#### **INTRODUCTION OF SEMESTER SYSTEM (CBCS)**

The examination system for evaluating the students is changed from existing year-wise examination to semester wise examination for continuous evaluation of the students. Moreover there is the credit system replacing the existing awarding of marks. The Mahatma Gandhi University, Nalagonda to which this college is affiliated, has introduced the new CBCS syllabus, specially designed for semester system, from the academic year 2016-17. In 2016, the 1<sup>st</sup> semester students were under the CBCS system. From 2018-19 onwards all the year students are under CBCS System.

## **STUDENT PERFORMANCE AND LEARNING OUTCOMES**

The percentage of university results in the subject concerned is maintained. The department reviews the results and takes remedial measures for the improvement of academic performance of the students in the subsequent examinations.

## **III. RESEARCH CONSULTANCY AND EXTENSION**

The Department assigns and guides few project works to meritorious students in various topics to inculcate research orientation among the students

S.No.	Title of the Project	Grade
1.	Sound Pollution and its consequences	A
2	The era of Optical Fibers	A

## **PROMOTION OF RESEARCH**

### **PAPER PRESENTATIONS:**

Presented a Review Article in the One day National Seminar on Innovations and Developments in Macro, Micro and Nano material Sciences on 14<sup>th</sup> November, 2018 at Indira Priyadarshini Government Degree College, Nampally, Hyderabad

Proceedings ISBN No. 978-81-939248-3-9

Title: “Bio-inspired Materials with Superior Mechanical Properties”

Authors: K. Haritha, Ch. Padmini, M. Archana, Ch. Navaneetha, B. Kalpana, Ch. Varalakshmi

## **RESOURCE MOBILIZATION FOR RESEARCH**

### **RESEARCH FACILITIES**

1. LIBRARY OF THE COLLEGE
2. COMPUTER LAB WITH WIFI

## **RESEARCH PUBLICATIONS AND AWARDS**

### **ARTICLES BY THE FACULTY, PUBLISHED**

The faculty of the department has published about 4 research papers in International journals.

1. *Relativistic potentials with rational extensions* KADIRI HARITHA and SHIVCHAITANYA K V S Research Article Volume 94 Published: 10 July 2020 Article ID 0102  
<https://www.ias.ac.in/describe/article/pram/094/0102>
2. *Statistical mechanics of DNA mutation using SUSY quantum mechanics* – Kadiri Haritha and K V S Shiv Chaitanya 2021 *J. Phys. A: Math. Theor.* **54** 305601  
<https://iopscience.iop.org/article/10.1088/1751-8121/ac0985>  
<https://doi.org/10.1088/1751-8121/ac0985>
3. Haritha, K., Chaitanya, K.V.S.S. Random matrices and quantum Hamilton-Jacobi method. *Eur. Phys. J. Spec. Top.* **231**, 151–158 (2022).  
<https://doi.org/10.1140/epjs/s11734-021-00363-y>

### **EXTENSION ACTIVITIES AND INSTITUTIONAL SOCIAL RESPONSIBILITY**

The students of Physics department are actively involved in various activities like Sports & Games, NSS, TSKC etc. The extension activities of the faculty are given in the Appendix 3

### **PARTICIPATION OF PHYSICS STUDENTS IN NATIONAL SERVICE SCHEME (NSS)**

### **PARTICIPATION OF PHYSICS STUDENTS IN JKC/TSKC**

S.No.	Five Components of TSKC curriculum	
1	Communication skills	Speaking Skills ,Writing skills &Vocabulary building in both English and Mother Tongue, ,
2	Technical Skills/ Computer Knowledge	Basic knowledge of Computers, SBTET Typing certificate, MS office, Internet Browsing, MOOCs, Certificate Courses



## Profile of **PHYSICS** Department, GDC ALAIR

3	Analytical Reasoning & Aptitude	Logical reasoning, Problem solving, Creative thinking and Arithmetic
4	Personality Development	Knowing Oneself, Relationships, Right knowledge
5	Career Guidance & Job Preparedness	Career opportunities, Job requirements and Job preparedness, Grooming.

### **COLLABORATIONS**

**LINKAGE:** Linkage with TSWRDC for the faculty exchange and student exchange programme for the benefit of students.

## **2. INFRASTRUCTURE AND LEARNING RESOURCES**

### **PHYSICAL FACILITIES**

#### **SPACIOUS CLASS ROOMS**

The department is located in the ground floor of the main building of the college. It has a spacious and fully ventilated lab cum classroom with proper electrification and infrastructure with lights and fans in the ground floor.

### **LIBRARY AS A LEARNING RESOURCE**

#### **DEPARTMENT LIBRARY**

There is separate departmental library for the Physics students with the provision of issuing books to the students.

### **IT INFRASTRUCTURE**

#### **INTERNET FACILITY**

The department has an internet connection.

## Profile of **PHYSICS** Department, GDC ALAIR

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- Internet facility to the Physics students in Department of Physics Lab
- There is a Desktop computer in the department.
- Wifi facility is there in the campus for students

### **MANA TV (T-SAT)**

The College has MANA TV facility which is a satellite specialized TV channel (T-SAT) for the purpose of education in MANA TV Room. There is list of programme schedule in which there are Physics lectures telecasted on certain dates and times which are used by the students of the Physics Department.

## **3. STUDENT SUPPORT AND PROGRESSION**

### **STUDENT MENTORING AND SUPPORT**

#### **PARTICIPATION OF TEACHERS IN ACADEMIC AND PERSONAL COUNSELLING OF STUDENTS:**

The lecturer in the department is assigned as Mentor/ Student counselor for a particular class assigned to them. They counsel the students in all respects like academic issues, career opportunities, personal issues etc. The teachers motivate the students to take up research projects.

### **STUDENT PROGRESSION**

#### **PLACEMENT RECORD OF THE PAST STUDENTS AND THE CONTRIBUTION OF THE DEPARTMENT TO AID STUDENT PLACEMENT.**

Students belonging to the rural background and poor economic status, do not take up higher education. The students generally take up private jobs in Alair along with farming. A student from B.Sc 2019-20 batch joined M.Sc Physics.

#### **STUDY PROJECTS:**

One student study project has been done as part of Jignasa Student Study Project entitled “**Sound Pollution and its consequences**” and was selected for the State-level Competition.

#### **4. GOVERNANCE, LEADERSHIP AND MANAGEMENT**

##### **STRATEGY DEVELOPMENT AND DEPLOYMENT**

The department takes care of the needs of the students that change from time to time and plans accordingly.

##### **FACULTY EMPOWERMENT STRATEGIES**

##### **DETAILS OF FACULTY DEVELOPMENT PROGRAMMES AND LIST OF TEACHERS WHO HAVE BEEN BENEFITTED DURING THE PAST FIVE YEARS.**

Faculty development programmes are conducted by academic staff colleges of various universities and also there are programmes specially designed by the Commissionerate of Collegiate Education, Telangana, such as Orientation Course (OC), Refresher Course (RC), Faculty Development Programmes and Short Term Courses like Human Values and Professional Ethics (HVPE) etc.

The faculty has attended the following training programmes organized by CCE, Govt. of Telangana.

NIPUNA

GANANA

#### **6.4. FINANCIAL MANAGEMENT AND RESOURCE MOBILIZATION**

Self finance B.Sc (Maths,Physics,Computer Science) restructured course

#### **6.5 INTERNAL QUALITY ASSURANCE SYSTEM**

Almanac of the University

CCE Academic calendar

Departmental meetings on syllabus coverage

Periodical verification of Academic records

Results analysis

Academic audits by external auditors appointed by CCE

Feedback Analysis

## **5. INNOVATIONS AND BEST PRACTICES**

### **ENVIRONMENT CONSCIOUSNESS**

Coordinator of Green Audit committee

Teach Environmental Science a part of the curriculum

Participated in Telanganaku Haritha Haram

### **INNOVATIONS**

Online Blended Teaching

Using Zoom, Google Meet Apps

Google Classroom

Creating Youtube Channels for Experiments

WhatsApp groups for Knowledge sharing

### **DEPARTMENTAL PRACTICES (BEST PRACTICES)**

- Encouraging the students by assigning them latest research oriented topics to write about them and present in front of their classmates. This will inculcate in them a sense of scientific temper and research orientation. If the students are unable to orally present they are allowed to submit their write-ups on their topics.
- A 5-minute test every day before starting that day's lecture as part of motivation and warm-up.

## **PLAN OF ACTION OF THE DEPARTMENT FOR THE NEXT FIVE YEARS.**

**1. Introduction of Certificate Course in House Wiring and Optician Course**

**2. Field visits to Electrical and Electronics repair centers, Electrical**

**Substations, Universities and Research Centers**

**3. Organize Faculty Development Programme on latest topics inviting Professors from BITS-Pilani Hyderabad Campus, Osmania University etc.**

**4. Guide more number of Student Study Projects**

**5. Extension lectures by University Professors and Scientists from various Research**

**Centers or Institutes.**

**PARTICIPATION IN COLLEGE ACADEMIC AND ADMINISTRATION**

The faculty is involved in various additional responsibilities like

- Website coordinator
- TSKC Coordinator
- Women Empowerment Cell Convenor
- Faculty Forum Convenor
- Anti-ragging Committee convenor
- In charge of Computer Science Department
- IQAC Member.

**APPENDICES:**

APPENDIX-1: LECTURER'S PERSONAL PROFILE

APPENDIX-2: DEPARTMENTAL TIME-TABLE DAY-WISE

APPENDIX-3: PHOTOS OF DEPARTMENTAL ACTIVITIES

APPENDIX-4: B.SC (PHYSICS) SYLLABUS UNDER CBCS

**EMPLOYEE PROFILE**



Name : **Dr. K. HARITHA**

Father Name : **Sri K. MURALIDHAR RAO**

## Profile of **PHYSICS** Department, GDC ALAIR

Mother Name : K. SUREKHA  
Date of Birth : 28-12-1974  
E mail : kadiriharita@gmail.com

Contact Address

Office : Asst.Prof. of Physics, Dept. of Physics

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Government Degree College, Alair. Yadadri Bhuvanagiri Dist.  
Permanent Address : 10-239/3, Vasanthapuri Colony, Malkajgiri,  
Hyderabad.  
Telangana - 500047

Educational Qualifications

**Ph.D (PHYSICS)** from BITS Pilani Hyderabad campus  
**Title of the Ph.D Thesis:** “Applications of Exceptional Polynomials to Quantum Mechanical Problems.”

**M.Sc (Physics)** : Specialization –Theoretical Physics

Osmania University,  
Hyderabad– Telangana.  
Batch : 1995-97

**Percentage of Marks** : 75.30 %

**State Eligibility Test**

**(SET-TS & AP-2014):** 14<sup>th</sup> February, 2013

**B.Ed (Physical Sciences).** : Institute of Advanced Study in Education,  
Osmania University campus,  
Hyderabad, Batch : 2008-2009.

**Percentage of Marks** : 75 %

**First Appointment of Govt. Job:** 24-01-2002 as Junior Lecturer at Government Junior  
College, Nawabpet, Rangareddy dist.

**Total Experience :** 20 years and 9 months as Junior Lecturer and Assistant Professor

**Govt. Degree College** : 22-05-2013 to 30-06-2018  
Assistant Professor

## Profile of **PHYSICS** Department, GDC ALAIR

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Govt. Degree College, Gajwel

Dist : Siddipet , Telangana

### **Present Station**

30-06-2018 to till date

Govt. Degree. College, Alair

Telangana

### **PUBLICATIONS:**

**1. *Relativistic potentials with rational extensions* KADIRI HARITHA and SHIV CHAITANYA K V S Research Article Volume 94 Published: 10 July 2020 Article ID 0102**

<https://www.ias.ac.in/describe/article/pram/094/0102>

**2. *Statistical mechanics of DNA mutation using SUSY quantum mechanics* – Kadiri Haritha and K V S Shiv Chaitanya 2021 *J. Phys. A: Math. Theor.* 54 305601**

<https://iopscience.iop.org/article/10.1088/1751-8121/ac0985>

<https://doi.org/10.1088/1751-8121/ac0985>

**3. *Haritha, K., Chaitanya, K.V.S.S. Random matrices and quantum Hamilton-Jacobi method. Eur. Phys. J. Spec. Top.* 231, 151–158 (2022).**

<https://doi.org/10.1140/epjs/s11734-021-00363-y>

### **Seminars/Conferences (International/National):**

1. Presented a Review Article in the One day National Seminar on [Innovations and Developments in Macro, Micro and Nano material Sciences](#) on 14<sup>th</sup> November, 2018 at Indira Priyadarshini Government Degree College, Nampally, Hyderabad
2. Proceedings ISBN No. 978-81-939248-3-9
3. Title: “Bio-inspired Materials with Superior Mechanical Properties”
4. Authors: K. Haritha, Ch. Padmini, M. Archana, Ch. Navaneetha, B. Kalpana, Ch. Varalakshmi
5. Participated in the Two day National Level Seminar on Food Safety, Quality and Policy at Government Degree College, Gajwel 28<sup>th</sup> and 29<sup>th</sup> June, 2018.

## Profile of **PHYSICS** Department, GDC ALAIR

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6. Participated and presented a paper in the National Level Seminar on The Impact of MNGREGS on Rural Development at Government Degree College, Gajwel, on 7<sup>th</sup> September, 2013.
7. Participated and presented a research paper titled “The Journey of Gender Sensitization through Education in India” in the National Seminar on Gender Sensitization in India- Prospects and Challenges on 10<sup>th</sup> March, 2016.

### **Orientation Courses : (01)**

1. Orientation Course held from **10 -11-2014 to 06-12- 2014** At UGC – Academic Staff College, Jawaharlal Nehru Technological University(JNTU), Hyderabad and obtained Grade ‘A’.

### **Refresher Courses : (02)**

1. Refresher Course on “Material Science (ID)” held from **08-02-2017 to 01-03-2017** At UGC – Academic Staff College, Osmania University, Hyderabad and obtained Grade ‘A’

### **FDP/FIP Courses : (05)**

1. FDP Online Short Term Course on “Quantum Mechanics” organized from **26-08-2018 to 31-08-2018** at AV College, Osmania University, Hyderabad.
2. One Week FDP Online Short Term Course on “Scilab” organized from **27-04-2020 to 01-05-2020** SWAYAM, Spoken Tutorials, IIT Bombay.
3. One Week FIP Online Short Term Course on “ **ICT Tools in Higher Education** ” organized from **12-08-2020 to 19-08-2020** at UGC-HRDC & RUSA , Osmania University,Hyderabad.
4. One-week Faculty Development Programme on **Moodle – Learning Management Systems (LMS)** from **1<sup>st</sup> July,2020 to 6<sup>th</sup> July, 2020** by Spoken Tutorials, IIT Bombay.
5. FDP in Physics at Mahatma Gandhi University from **26<sup>th</sup> July to 30<sup>th</sup> July 2022**

### **Conferences & Workshops Attended :**

One-Day Departmental Conference of Degree College Teachers in Physics and \



## Profile of **PHYSICS** Department, GDC ALAIR

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Electronics from **31<sup>st</sup> January, 2015**. At Osmania University, Hyderabad organized in collaboration with Commissionerate of Collegiate Education.

3 – Day District Level Training Program on “**A Foundation Course in Human Values & Professional Ethics**” at Government Degree College, Sangareddy from 8<sup>th</sup> July, 2013 to 10<sup>th</sup> July, 2013 Conducted through the Commissionerate of Collegiate Education, Government of Andhra Pradesh.

Participated in a one day workshop on Research Methodology at Government Degree College, Gajwel on 10<sup>th</sup> September, 2015.

Participated in a one-day National Level Workshop on Implementation of Choice Based Credit System in HEIs at Government Degree College, Siddipet on 5<sup>th</sup> July, 2016.

One day training programme on **Gender Sensitization** in the PGRRCDE Osmania University on 25<sup>th</sup> January, 2017.

Participated in a one-day State-level workshop on Story-writing and Song-composition at Government Degree College, Gajwel on 30<sup>th</sup> November, 2017.

Attended a 1 day National level Workshop on Virtual Learning – An Innovative Path Towards ICT Teaching at Keshav Memorial Institute of Commerce and Sciences in collaboration with the Amrutha

University, Kerala, on 30<sup>th</sup> March, 2019.

Regional Workshop on the implementation of e-office set-up in GDCs, Telangana at Kakatiya Degree College, Hanamkonda, Telangana on 5<sup>th</sup> May, 2019.

### **Training Programmes Attended:**

Two-Day training programme named “NIPUNA” held on 12<sup>th</sup> & 13<sup>th</sup> May, 2016 sponsored by RUSA at Hyderabad.

Two-Day training programme named “GANANA” held on 20<sup>th</sup> April, 2016 sponsored by RUSA at Hyderabad.

### **EXTENSION WORK:**

T-SAT / MANA TV LIVE TELECAST RESOURCE PERSON:

Profile of **PHYSICS** Department, GDC ALAIR

Topic : Production of Low Temperatures

Date of Live Telecast Lecture : 22-10-2019 (GDC, ALAIR)

<https://youtu.be/4eWlv8fyDJk>

Topic : Statistical Mechanics

Date of Live Telecast Lecture : 10-07-2018

## Profile of **PHYSICS** Department, GDC ALAIR

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<https://youtu.be/bqp9BPlvnX8>

You Tube Channel link of K. Haritha

<https://youtube.com/channel/UCmR6e7jS7iNaxNxvGSJRqwg>

2. Acted as **Subject Expert** for Physics to conduct the interviews for the appointment of Lecturers in Private College, Bhuvanagiri as per the order of the VC, MG University.
3. Acted as Judge for the Regional Level Science Exhibition 2016 at JNV Medak Dist on 23<sup>rd</sup> and 24<sup>th</sup> August, 2016.
4. Board member to select Guest Faculty for the Residential Junior Colleges Pregnapur, 7-9-2016 forenoon and afternoon.
5. Acted as a **Judge** for the 25<sup>th</sup> **National Children's Science Congress, SCERT** Government of Telangana on 20<sup>th</sup> October, 2017 at Government High School, Kukatpally, Hyderabad.
6. Delivered an **Extension lecture** at Government Degree College, Malkajgiri on Statistical Mechanics to the B.Sc. III semester students on 16<sup>th</sup> November, 2019.
7. Delivered an **Extension Lecture** on Raman Effect on the Occasion of National Science Day 28<sup>th</sup> February, 2020 at ABV Government Degree College, Janagaon.

### **FIELD TRIPS**

- Field Trips Field Trip to Electric Transformer, Kolanpak.
- Field trip to Osmania University, Hyderabad as part of Jignasa study project. Field Trip to Infosys SEZ
- Field trip to NGRI (National Geophysical Research Institute),

UPPAL, Hyderabad on 26<sup>th</sup> September, 2022

### **ADDITIONAL RESPONSIBILITIES IN THE COLLEGE:**

S.No	Additional Responsibility Taken up
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## Profile of **PHYSICS** Department, GDC ALAIR

<u>1</u>	Coordinator, TSKC (Career Development Cell) from 1-7-2018 to 31-9-2021
<u>2</u>	Convenor, Faculty Forum, till date.

## Profile of **PHYSICS** Department, GDC ALAIR

<u>3</u>	Convenor, Women Empowerment Cell till date
<u>4</u>	Convenor of Scholarship Committee
<u>5</u>	Coordinator, Green Audit Committee
<u>6</u>	Convenor, Anti-ragging Committee till date
<u>7</u>	Incharge of Department of Physics (01-07-2018 to till date)
<u>8</u>	Member, IQAC
<u>9</u>	NSS Programme Officer, September, 2022 till date

### **EXTENSION ACTIVITIES:**

1. Coordinated the formation and functioning of five student volunteer teams in the Beat Covid Campaign initiative of Mahatma Gandhi National Council of Rural Education, A unit of **Department of Higher Education, Government of India.**
2. Coordinator, **Green Audit Committee**
3. Faculty Committee member, **Energy Management, Swachhta Action Plan, Ministry of Human Resource Development, Government of India.**

Profile of **PHYSICS** Department, GDC ALAIR

**APPENDIX-2: DEPARTMENTAL TIME-TABLE DAY-WISE:**

**DEPT. OF PHYSICS, GDC, ALAIR  
TIME TABLE 2015-2016**

Day/Period	I 1:00-1:50	II 1:50-2:40	III 2:40-3:30	IV 3:30-4:20	V 4:20-5:10	VI 5:15-6:00
MONDAY	MPC-III	MPC-I	MPC-II	<-----PRACTICAL -----> MPC-III (Paper-IV)		
TUESDAY		MPC-III (Paper-IV)		<-----PRACTICAL -----> MPC-I		
WEDNESDAY		MPC-II	MPC-III	MPC-I	<----PRACTICAL ----> MPC-II	
THURSDAY	MPC-II	MPC-III	MPC-I			
FRIDAY		MPC-III (Paper-IV)		<-----PRACTICAL -----> MPC-III		
SATURDAY	MPC-I	MPC-II	MPC-III (Paper-IV)			

Profile of **PHYSICS** Department, GDC ALAIR

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**DEPT. OF PHYSICS, GDC, ALAIR**  
**TIME TABLE 2016-2017**

<b>Day/Period</b>	<b>I 12:00-12:50</b>	<b>II 12:50-1:40</b>	<b>III 1:40-2:30</b>	<b>IV 2:40-3:30</b>	<b>V 3:30-4:20</b>	<b>VI 4:20-5:10</b>
<b>MONDAY</b>	<b>MPC-III Practical-IV</b>		<b>MPC-II</b>		<b>MPC-I</b>	
<b>TUESDAY</b>	<b>MPC-I Practical-I</b>				<b>MPC-III (Paper-IV)</b>	
<b>WEDNESDAY</b>	<b>MPC-II Practical-II</b>		<b>MPC-III</b>	<b>MPC-III (Paper-IV)</b>		<b>MPC-I</b>
<b>THURSDAY</b>	<b>MPC-II</b>			<b>MPC-III (Paper-IV)</b>		<b>MPC-I</b>
<b>FRIDAY</b>	<b>MPC-III (Practical-III)</b>			<b>MPC-II</b>	<b>MPC-III</b>	
<b>SATURDAY</b>		<b>MPC-II</b>		<b>MPC-I</b>	<b>MPC-III</b>	

**DEPT. OF PHYSICS, GDC, ALAIR**  
**TIME TABLE 2017-2018**

Day/Period	I 12:00-12:50	II 12:50-1:40	III 1:40-2:30	IV 2:40-3:30	V 3:30-4:20	VI 4:20-5:10
<b>MONDAY</b>	<b>MPC-III Practical-IV</b>		<b>MPC-II</b>		<b>MPC-I</b>	
<b>TUESDAY</b>	<b>MPC-I Practical-I</b>				<b>MPC-III (Paper-IV)</b>	
<b>WEDNESDAY</b>	<b>MPC-II Practical-II</b>		<b>MPC-III</b>	<b>MPC-III (Paper-IV)</b>		<b>MPC-I</b>
<b>THURSDAY</b>	<b>MPC-II</b>			<b>MPC-III (Paper-IV)</b>		<b>MPC-I</b>
<b>FRIDAY</b>	<b>MPC-III (Practical-III)</b>			<b>MPC-II</b>	<b>MPC-III</b>	
<b>SATURDAY</b>		<b>MPC-II</b>		<b>MPC-I</b>	<b>MPC-III</b>	



**DEPT. OF PHYSICS, GDC, ALAIR**  
**TIME TABLE 2018-2019**

Day/Period	I 10:00-11:00	II 11:00-12:00	III 12:00-1:00	L U N C H	IV 1-30--2:30	V 2:30-3:30	VI 3:30-4:30	
MONDAY	MPC-III Practical-IV		MPC-II				MPC-I	
TUESDAY	MPC-I Practical-I					MPC-III (Paper-IV)	MPC-II	
WEDNESDAY		MPC-II	MPC-III (Paper-IV)			MPC-III (Paper-III)		MPC-I
THURSDAY		MPC-II				MPC-I	MPC-III (Paper-IV)	
FRIDAY	MPC-III (Practical-III)		MPC-I				MPC-III (Paper-III)	
SATURDAY		MPC-III (Practical-III)					MPC-III	

Profile of **PHYSICS** Department, GDC ALAIR

**DEPT. OF PHYSICS, GDC, ALAIR**  
**TIME TABLE 2019-2020**

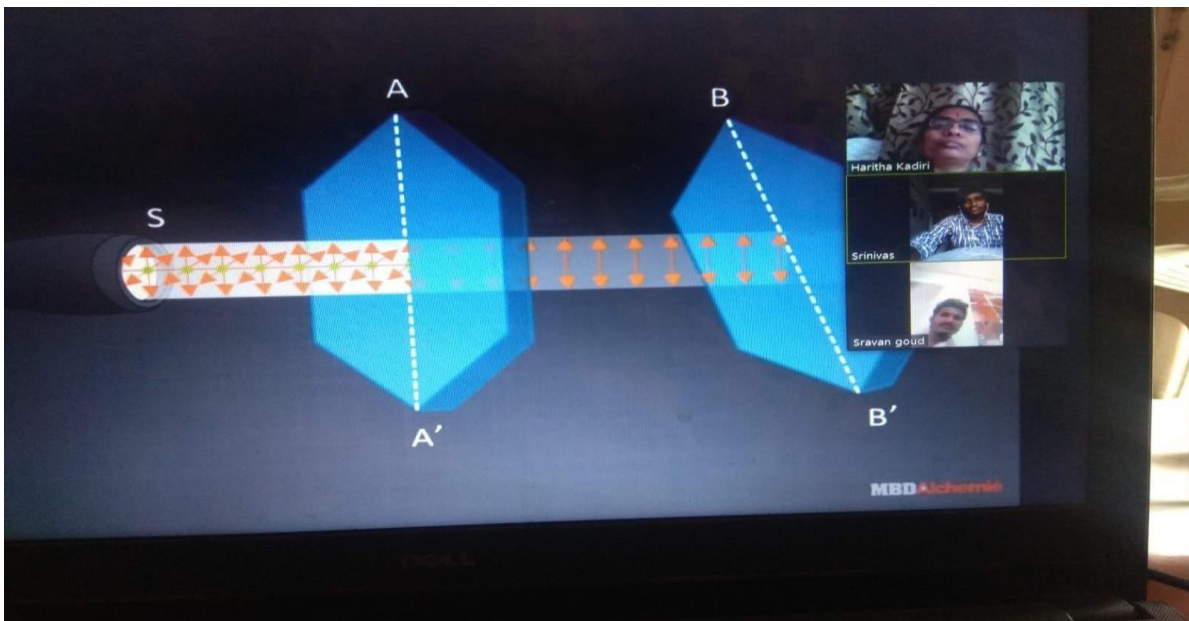
Day/Period	I 10:00-11:00	II 11:00-12:00	III 12:00-1:00	L U N C H	IV 1-30--2:30	V 2:30-3:30	VI 3:30-4:30	
MONDAY	MPC-V Practicals-VI		MPC-III				MPC-I	
TUESDAY	MPC-I Practicals					MPC-III (Paper-VI)	MPC-III	
WEDNESDAY		MPC-III	MPC-V (Paper-VI)			MPC-V (Paper-V)		MPC-I
THURSDAY			MPC-III			MPC-I	MPC-III (Paper-VI)	
FRIDAY	MPC-V (Practicals-V)		MPC-I				MPC-V (Paper-V)	
SATURDAY	PHY V	MPC-III (Practicals)					MPC-I	



**APPENDIX-3: PHOTOS OF DEPARTMENTAL ACTIVITIES**



**Online Class with PPT during the COVID-19 Lockdown**



## Profile of PHYSICS Department, GDC ALAIR



Students' Seminars



# Profile of PHYSICS Department, GDC ALAIR

**GOVERNMENT DEGREE COLLEGE, ALAIR**  
**YADADRI BHONGIR DIST**  
**TELANGANA**  
**Department of Physics**

**National Science Day**

**Online QUIZ**

26th Feb, 2021 to 1st March 2021

PLEASE VISIT OUR WEBSITE:  
<https://gdcts.cgg.gov.in/alair.edu>

No registration fee

E-Certificates for those who score  $\geq 40\%$

*Dr. Ch. Satyanarayana, Principal (FAC)*

*K. Haritha, Asst. Professor, Department of Physics*

Link: [https://docs.google.com/forms/d/10v5KqGII1Z\\_e8pswtorQnbB3TrmPEBIQC7v9IWaB-Bk](https://docs.google.com/forms/d/10v5KqGII1Z_e8pswtorQnbB3TrmPEBIQC7v9IWaB-Bk)

11/14/21, 2:10 PM

Quiz on Statistical Mechanics

## Quiz on Statistical Mechanics

The Quiz is organized by K. Haritha, Incharge, Department of Physics, Government Degree College, ALAIR, Yadadri Bhongir district. Telangana.

Email \*

[skab.aleem@gmail.com](mailto:skab.aleem@gmail.com)

Welcome to Government Degree College, Alair.



REDMI NOTE 8 PRO  
HI DUAL CAMERA



Campaigning for the college Admissions



Admission Campaign in the local Junior College





## Profile of PHYSICS Department, GDC ALAIR



Talent Test and Science Expo to the Junior College students of ALAIR town



## Profile of **PHYSICS** Department, GDC ALAIR



Prize distribution



Extension Lecture by Dr. Ch. Varalakshmi on the topic  
“BASIC ELECTRONICS” to all the B.Sc (Physics) students.



Profile of **PHYSICS** Department, GDC ALAIR



## Profile of **PHYSICS** Department, GDC ALAIR



Delivered an Extension Lecture at ABV Government Degree College, Janagaon on Raman Effect



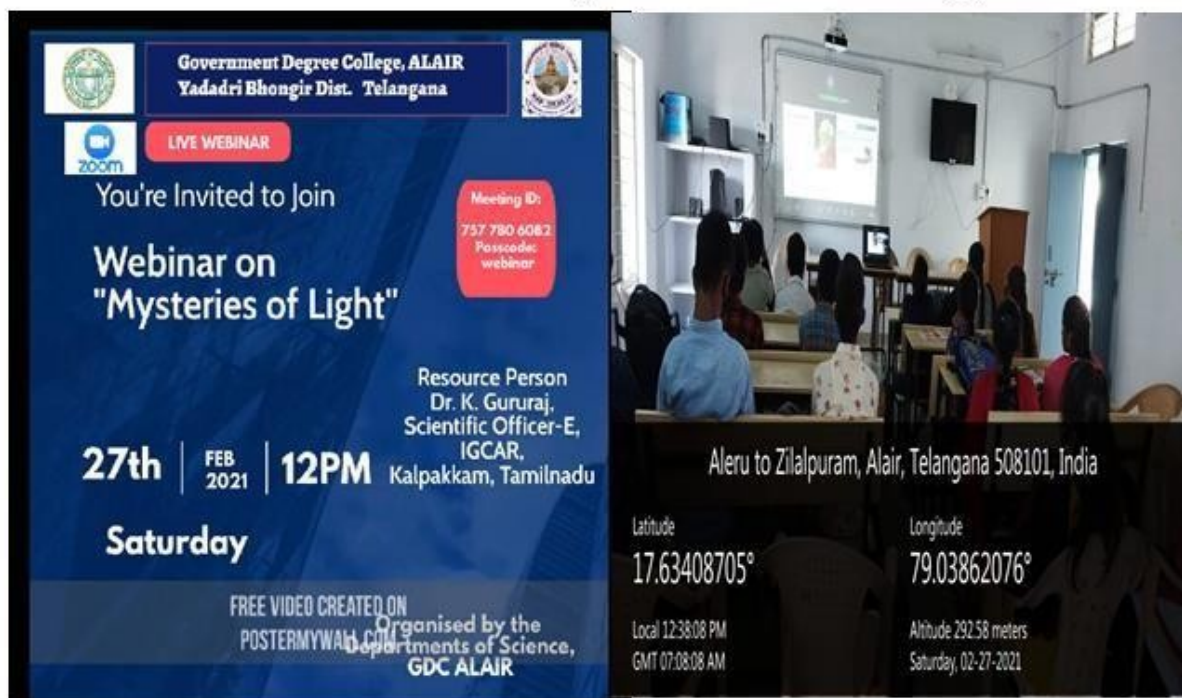




## Talk on the International Ozone Layer Protection Day



## Webinar on Mysteries of Light



**Government Degree College, ALAIR**  
Yadadri Bhongir Dist. Telangana

**LIVE WEBINAR**

You're Invited to Join

**Webinar on "Mysteries of Light"**

Meeting ID: 757 780 6082  
Passcode: webinar

Resource Person  
Dr. K. Gururaj,  
Scientific Officer-E,  
IGCAR,  
Kalpakkam, Tamilnadu

**27th** | FEB 2021 | **12PM**

**Saturday**

FREE VIDEO CREATED ON POSTERMYWALL.COM

Organised by the Departments of Science, **GDC ALAIR**

Aleru to Zilalpuram, Alair, Telangana 508101, India

Latitude: 17.63408705°  
Longitude: 79.03862076°  
Local 12:38:08 PM  
GMT 07:08:08 AM  
Altitude 292.58 meters  
Saturday, 02-27-2021

Admission Campaigning in the  
Government Junior College, ALAIR



Green Audit- With the special Invitee-  
Forest Officer Janagaon



**Jangaon, Telangana, India**

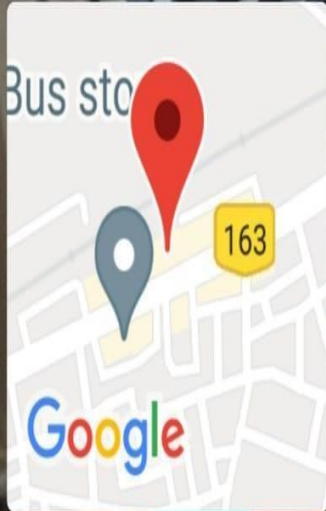
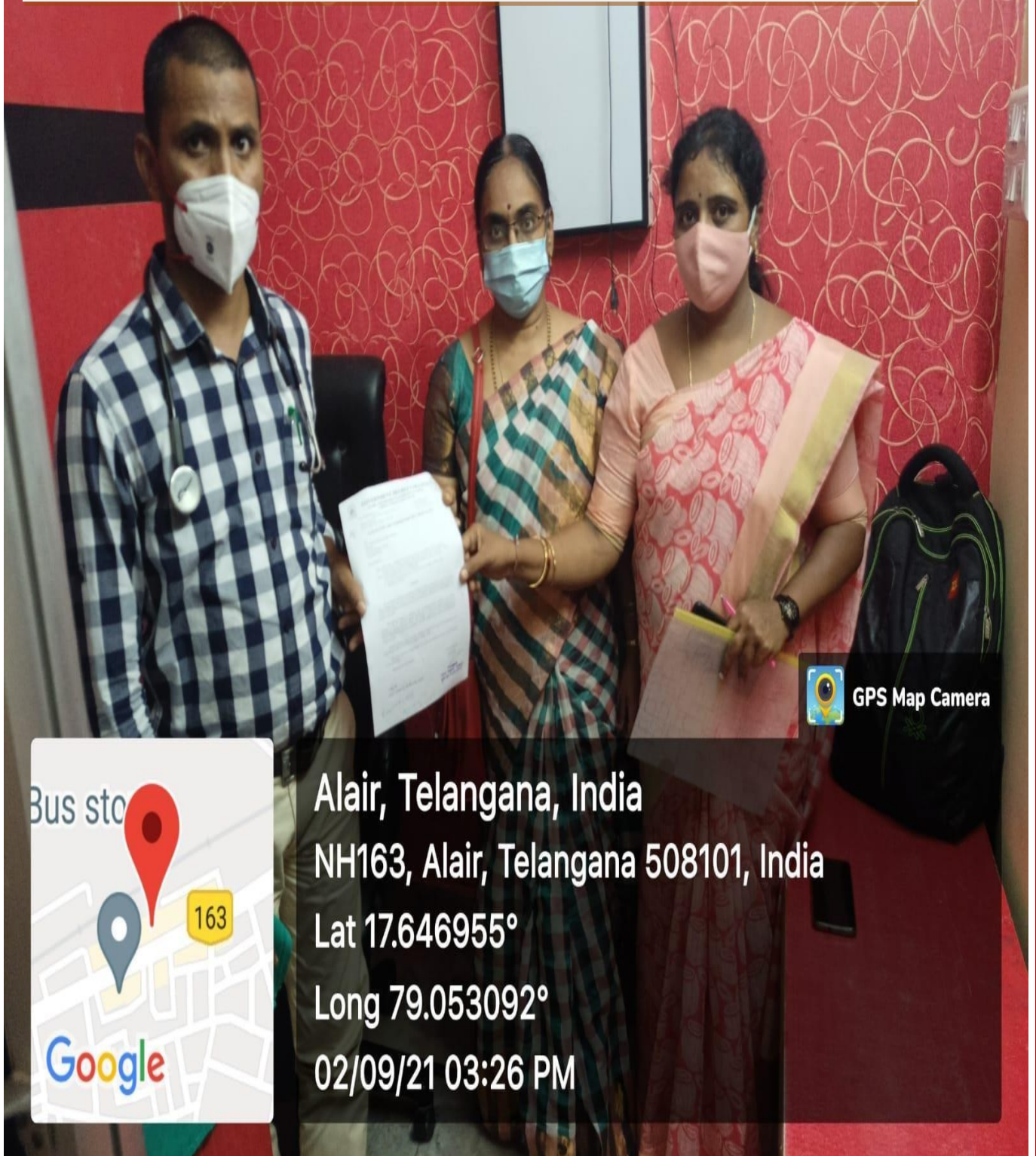
Jyothi Nagar Rd, Jyothi Nagar Colony, Jangaon, Telangana, India

Lat 17.712218°

Long 79.160321°

04/10/21 02:03 PM

With the Doctor, requesting for the Covid Vaccination Drive in the college



Alair, Telangana, India

NH163, Alair, Telangana 508101, India

Lat 17.646955°

Long 79.053092°

02/09/21 03:26 PM



Admissions

Science Quiz organized by the Science Departments of the college.



Plantation at the college  
Campus







Women's Day speech-2019



Women's Day speech-2020



Power point presentation on “**Why not to Take Drugs**” on the International Day against Drug Abuse and Illicit Trafficking



↓  
**AGAINST DRUG ABUSE**

సవరించబడిన

5/12

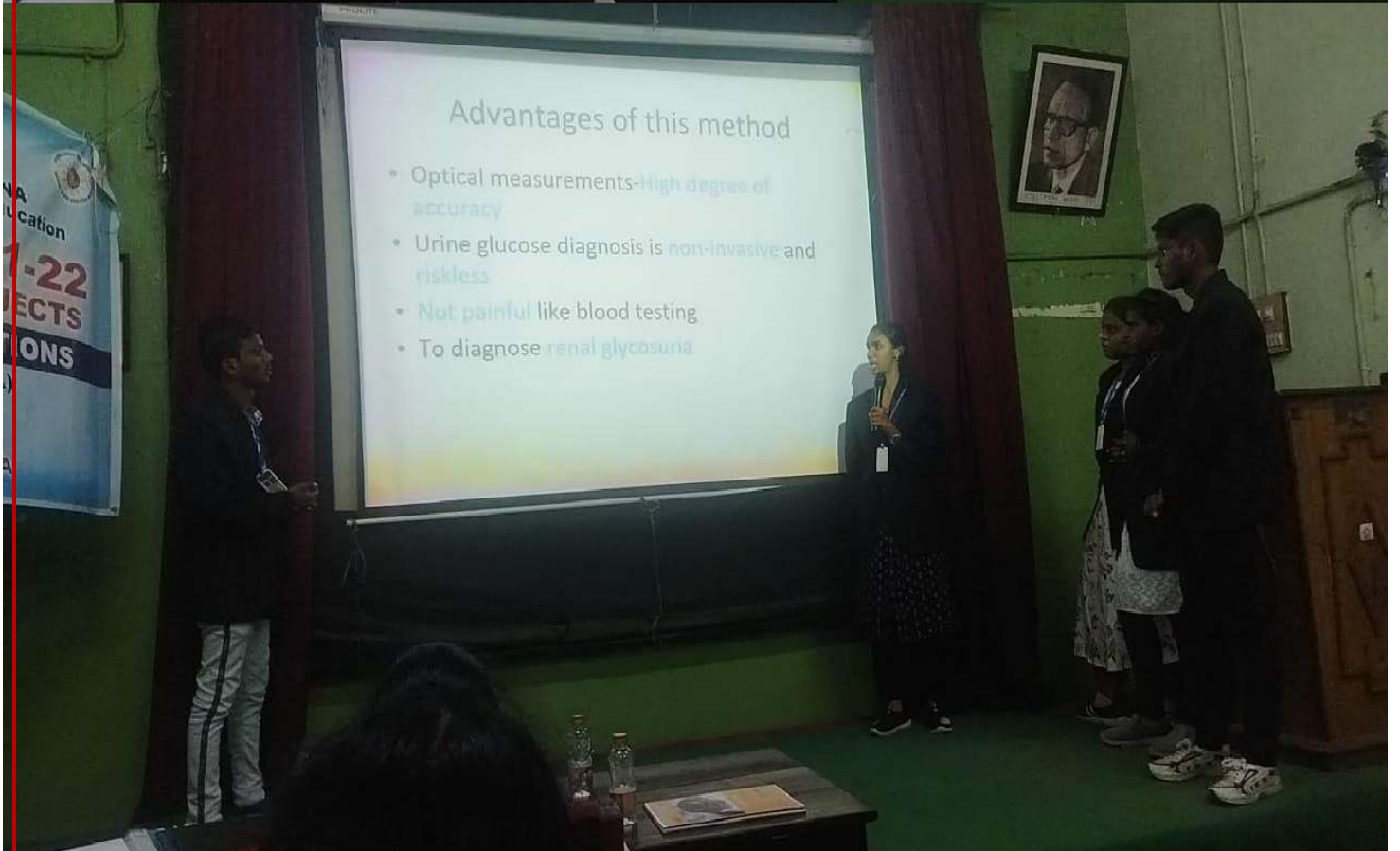
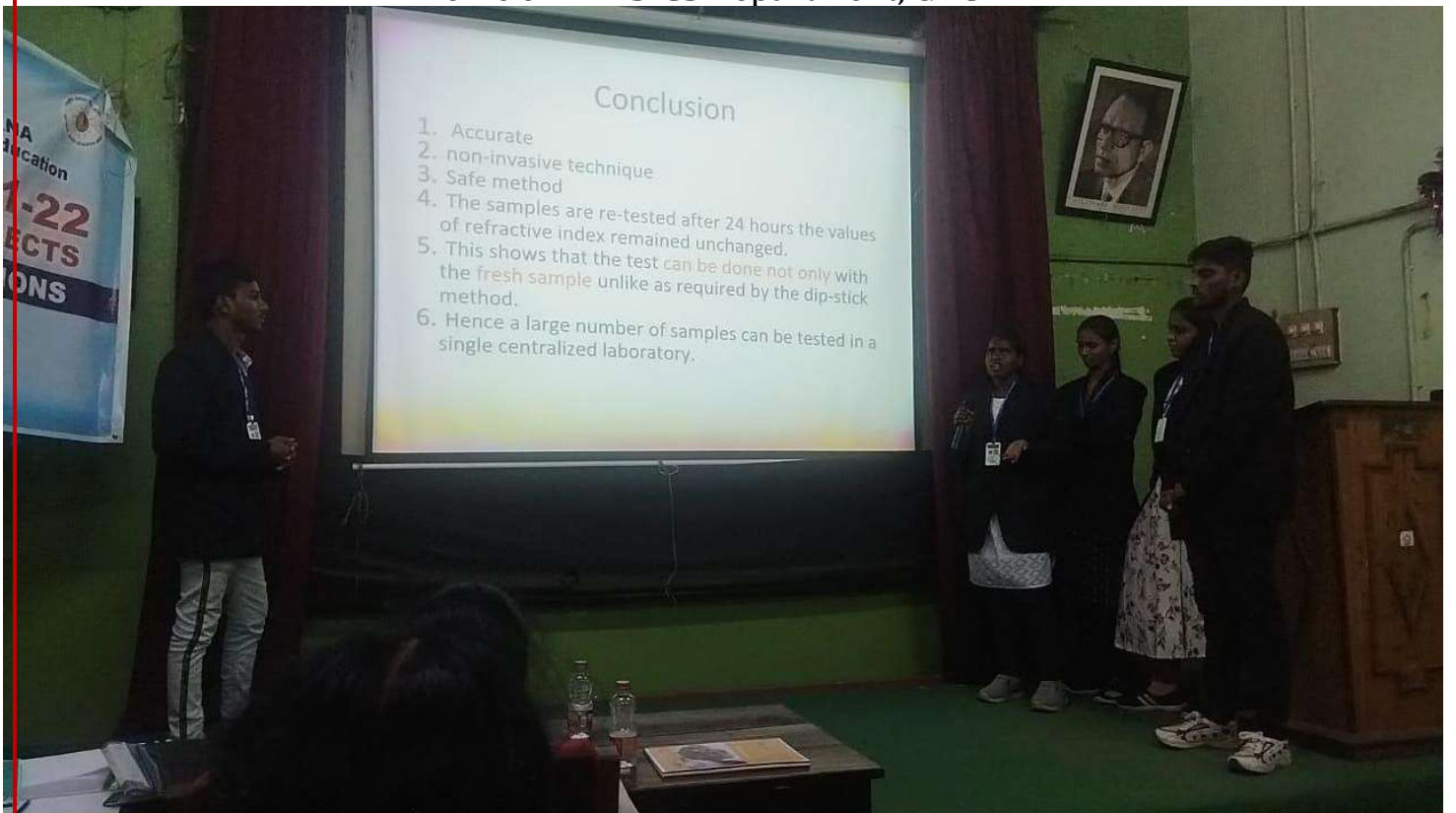
అలేరు టౌన్ : మండల కేంద్రంలోని ప్రభుత్వ డిగ్రీ కళాశాలలో గురువారం తెలంగాణ ఆకాడమీ ఆఫ్ స్పెషల్, డిఎస్సీలో నమోదైన విద్యార్థులకు రెండు రోజుల శిక్షణా ప్రారంభించారు. ఉద్యోగ, ఉపాధి అవకాశాలను పొందడానికి శిక్షణ ఇస్తామని నిర్వహకులు ఇండ్రకుమార్ అన్నారు. ఈ కార్యక్రమంలో కళాశాల ప్రెసిడెంట్ సత్యనారాయణ, డాక్టర్ జైపాల్, డాక్టర్ రామాచారి, వెంకటేశం, కిషన్, రజన్, రేవతి, చూరవి, చిత్ర, రేవంత్, ఉపేంద్ర పాల్గొన్నారు.

## Profile of **PHYSICS** Department, GDC ALAIR

### JIGNASA- STUDENT STUDY PROJECT 2021

Presented a study project titled “Estimation of urine sugar using Refractometric analysis”, at Government Degree College, Nayapul(CITY College) Hyderabad.

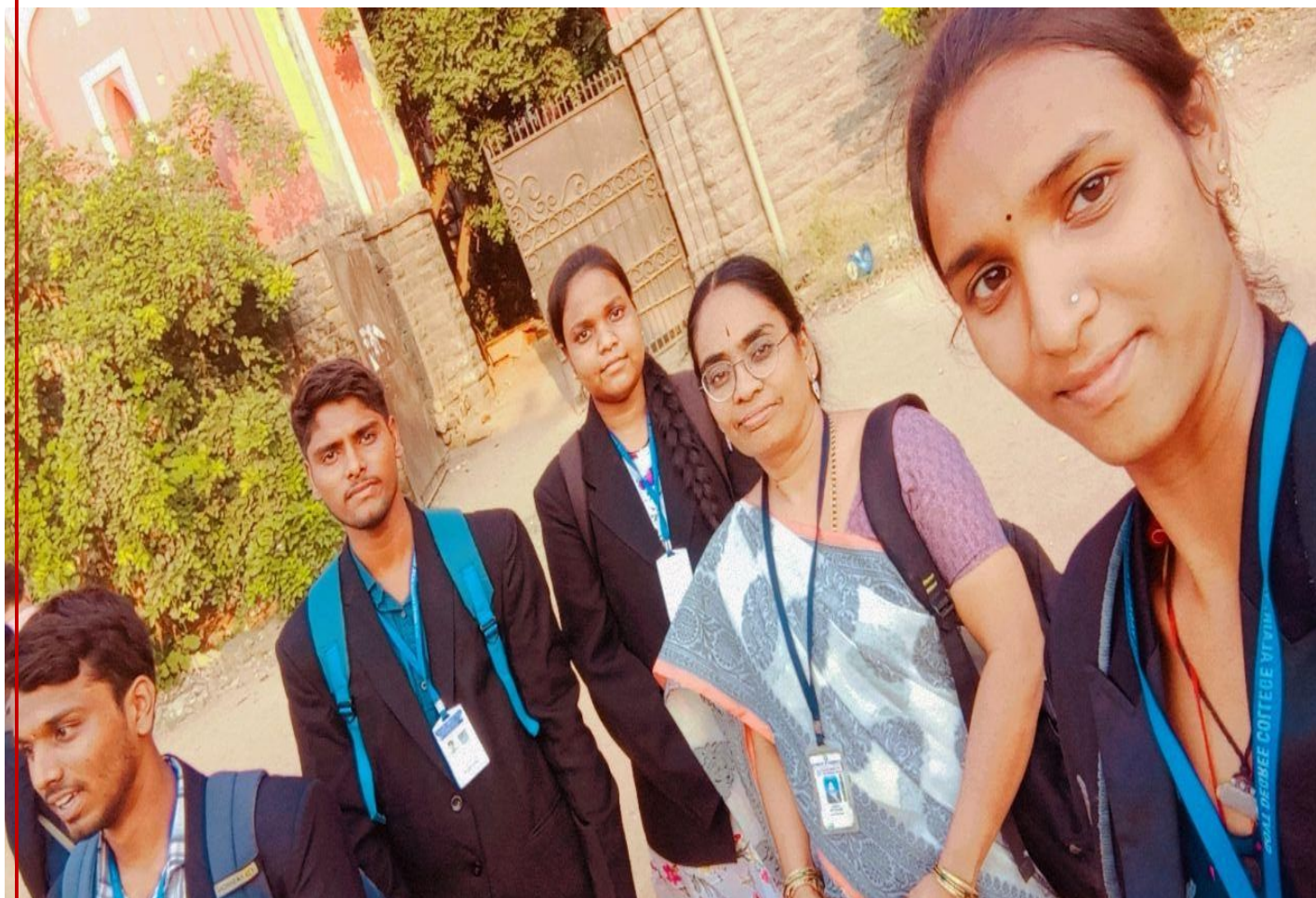




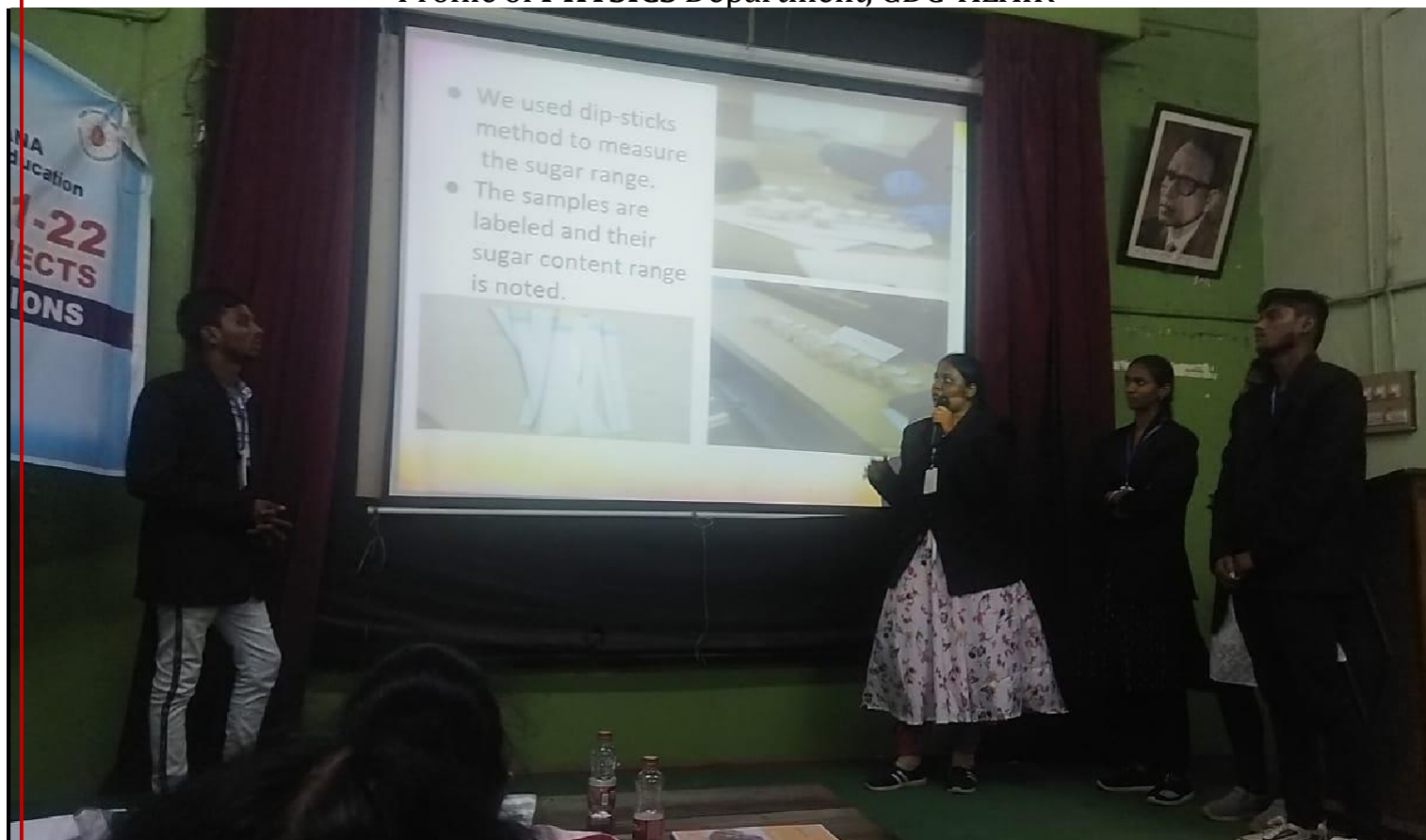
## Profile of **PHYSICS** Department, GDC ALAIR



## Profile of **PHYSICS** Department, GDC ALAIR



## Profile of PHYSICS Department, GDC ALAIR





## Profile of **PHYSICS** Department, GDC ALAIR

Met the MLA, Alair Constituency for requesting funds for the Lab material



# THANK YOU





# GOVERNMENT DEGREE COLLEGE

ALAIR, YADADRI BHUVANAGIRI (DIST.) T.S, 508101.  
(Affiliated to Mahatma Gandhi University)

Ch. Sathyanarayana  
M.Com, M.F.A., M.B.A., Ph.D.  
PRINCIPAL (FAC)  
Website: <https://gdets.cgg.gov.in/alair.edu>

Office: 08685295974  
Cell: 9154806874  
Email: [gdc.alair@yahoo.com](mailto:gdc.alair@yahoo.com)

CODE: 4010

Date: 5.2.2021

From  
The principal,  
Government Degree College,  
ALAIR,  
Yadadri bhongir dist

To  
The warden,  
Tribal welfare boys hostel,  
Manthapuri road,  
Alair, Yadadri Bhongir dist.

Dear Madam,

Sub: Request to permit our students to teach the school students of your hostel as part of our social responsibility-regarding.

\*\*\*\*\*

Our college building is located adjacent to your tribal welfare hostel. Hence it has been a practice since we shifted to this college building, to encourage our students to teach/tutor the hostel students after the college hours under the theme of inculcating the social consciousness among our students. Due to covid times, the practice has been abruptly stopped. Now we want to resume it. Please permit our students to continue the best practice from now onwards i.e., date: 5-2-2021.

Thanking you,

Permitted  
Y.H.V. [Signature]  
Hostel Welfare officer  
Govt S.T. Boys Hostel, Alair

[Signature]  
PRINCIPAL  
Govt. Degree College  
Alair, Dist. Yadadri Bhongir

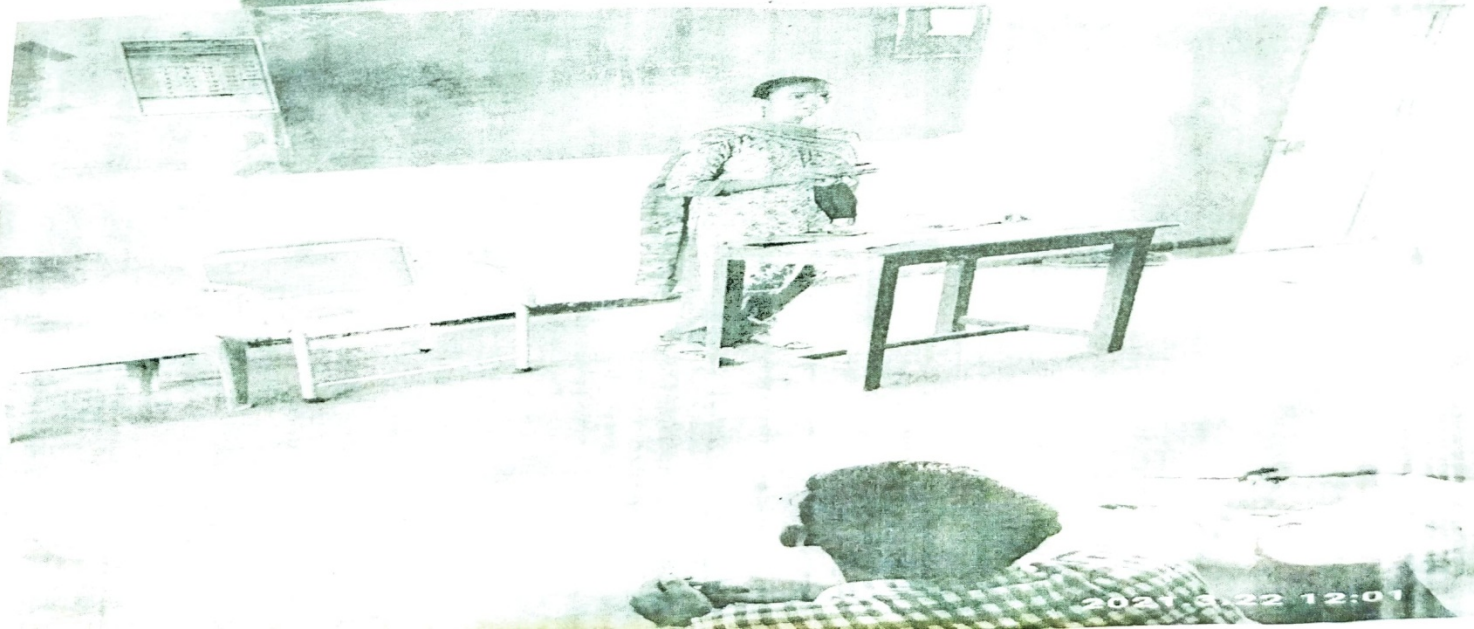
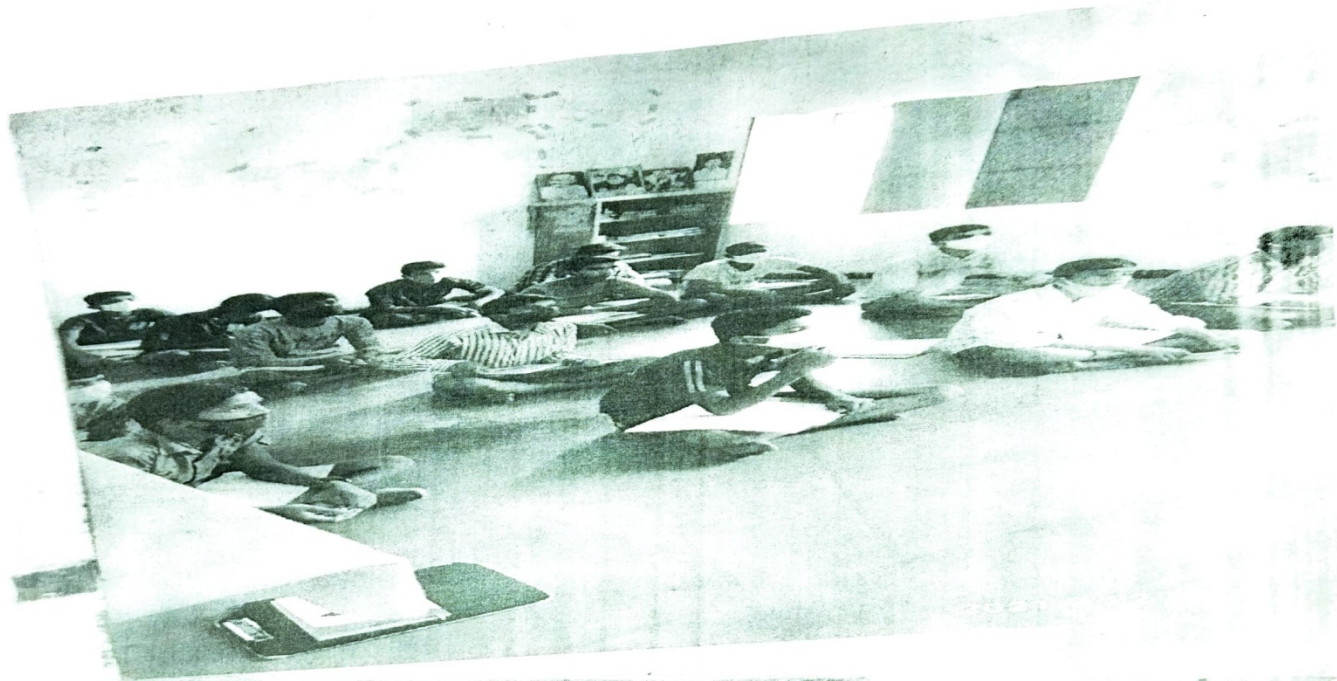
Government Degree College, Alair  
Yadadri Bhongir Dist.

Attendance proforma for teaching the hostel students

S.No.	Date	Name of the	Group/year	Topic covered	No. of	Signature
1	2/5/2021	V. Saidatta	B.Sc MPCs I year	Mathematics	12	
2	2/6/2021	P. Sirisha	B.Sc MPCs I year	Social	11	
3	2/19/2021	G. Shravani	B.Sc MPCs I year	Story telling	12	
4	2/20/2021	D. Srikanth	B.Sc MPCs I year	Mathematics	13	
5	3/5/2021	M. Sathwika	B.Sc MPCs I year	English	10	
6	3/22/2021	P. Sirisha	B.Sc MPCs I year	Social	18	

  
  
Govt. Degree College  
Alair, Dist. Yadadri Bhongir

D. Srikanth, MPES





Google 63

Aleru to Zilalpuram

Alair, Telangana, India

Aleru to Zilalpuram, Alair, Telangana 508101, India

Lat N 17° 37' 58.1592"

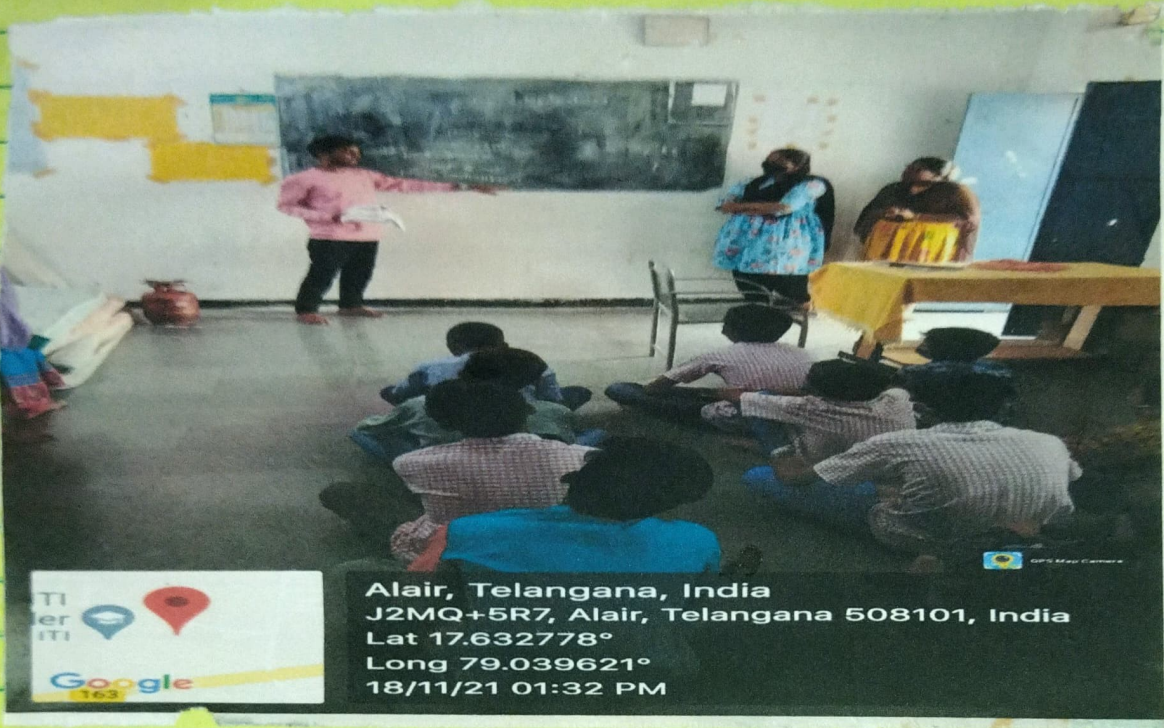
Long E 79° 2' 22.0416"

22/03/21 11:53 AM

B.Sc MPCs II year student G. Shrivani



B.Sc MPCs II year V. Saidatta

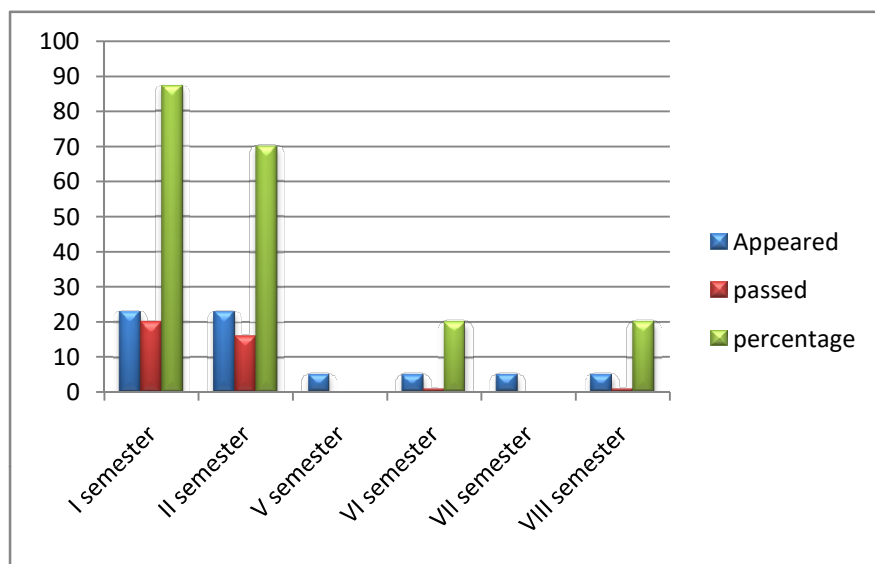


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### Physics Result analysis for the year 2020-21

Appeared passed percentage

	Appeared	passed	percentage
I semester	23	20	87
II semester	23	16	70
V semester	5	0	0
VI semester	5	1	20
VII semester	5	0	0
VIII semester	5	1	20



### Internal examinations

Appeared passed percentage

	Appeared	passed	percentage
I semester	21	21	100
II semester	23	23	100
V semester	5	5	100
VI semester	5	5	100
VII semester	5	5	100
VIII semester	5	5	100



A FIELD TRIP TO NGRI, UPPAL HYDERABAD

ON ITS OPEN DAY 26<sup>TH</sup> SEPTEMBER, 2022 BY THE DEPARTMENT OF PHYSICS AND MATHEMATICS





26/09/2022 11:03



26/09/2022 11:52





26/09/2022 11:26



26/09/2022 11:03







