

Innovative/Best Practices

Department of Physics Tara Government College, Sangareddy

Best Practice: Information and communication Technology (ICT)

Department uses ICT in all the possible ways in administration as well as giving information to the students. The department has set up Gmail ID physics.tarargdc@gmail.com with associated Google Drive account so that all the departmental information will be in one cloud storage. This enables anyone in the department can access any information related to the department 24x7.

Virtual online classroom app Google classroom is used to give material to the students as well as collecting assignments from the students.

The physics department conduct online internals using Google forms. The physics department extensively use Excel sheets in storing the information related to the students such as marks and their mobile numbers and email IDs. All the information of the department is well organized in folders and easily accessible anywhere.

we use latest technologies for teaching such as augmented reality and virtual reality for better understanding of the students.

The department conducts PPT based seminars to the students so that students develop ICT Skills as well as Presentation skills which will be useful for interviews and other employment skills. P R Ratan Kumar of the Department is having personal website as well as the YouTube channel to cater to the needs of the students.

Usage of ICT


Simulations

Objective: Using simulations for better understanding of physics





Sri P R Ratan Kumar, Asst Professor has demonstrated crystal simulations in teaching solid state physics to BSc MPCs III-year students


QR Code Based Learning The department of Physics has started an innovative way of learning using QR Codes. This enables students to find the most convenient way of getting materials. The Timetable also can be accessed using QR Code.

**Modern Physics
Semester V
PHYSICS**


Syllabus

Scan QR Codes for Each Unit

<p>Unit - I Spectroscopy</p> 	<p>Unit - II Quantum Mechanics</p> 	<p>Unit - III Nuclear Physics</p> 	<p>Unit - IV Solid State Physics</p> 
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Important Questions → 

Google Office

In addition, the department extensively uses Google Classroom, Google Docs, Google Sheets and Google forms. In administration also the department uses Cloud based docs for easier editing and updating.

YouTube videos

All the faculty making and uploading YouTube videos. The department also started YouTube Playlists for accessing classes on important topic.

Sri P R Ratan Kumar of the department is also having YouTube channel with several educational videos. Further he is also maintaining his website: www.ratankumarpr.in

YouTube Channel link:

<https://www.youtube.com/channel/UCtvQGmXAYA56I6W3m4CAbWg/featured>

Google Classroom

Learning Management System (LMS) – Google Classroom is used for online teaching and giving material and assignments. This is very useful for providing material for students.



Modern Physics

All topics

modern phy SSP-1

Modern Physics

physics taragdc posted a new assignment: Assignment

Due Dec 25, 2021

Posted Dec 21, 2021

Assignment document has to be uploaded

35
Turned in

36
Assigned

2 class comments

Bhargavi Padamati Dec 23, 2021

P.Bhargavi
6058_19_468_082
Bsc(Mpcs)3rd year 5th sem

▶

physics taragdc posted a new assignment: seminar

Due Dec 25, 2021

Posted Dec 20, 2021 (Edited Dec 21, 2021)

Assignment

33
Turned in

38
Assigned

Digital Attendance

The Department has started taking Digital Attendance thereby reducing paper wastage easily analysing. P R Ratan Kumar has created digital way taking attendance using google form.

BSc III year attendance

Digital Attendance of III Year B.Sc MPCs Students

 ratankumar.gdc@gmail.com (not shared)
[Switch accounts](#)



***Required**

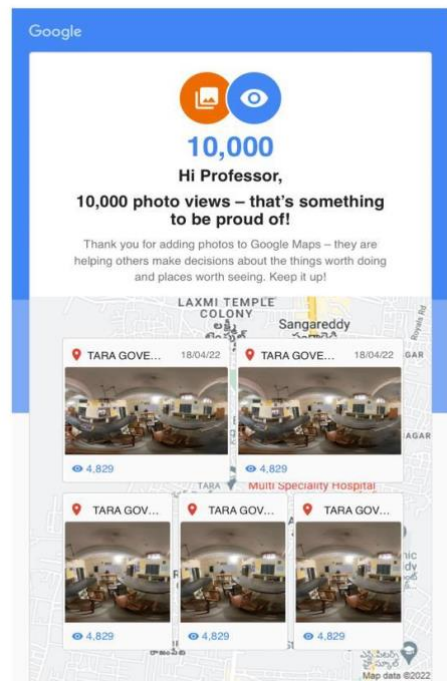
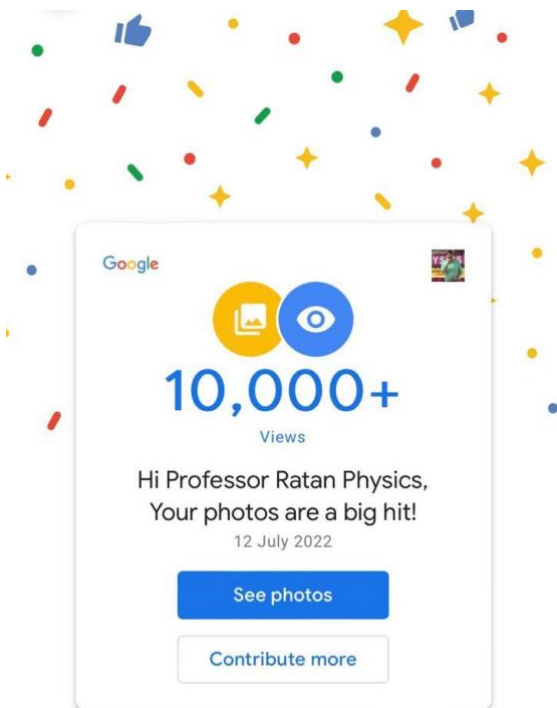
Student Attendance

	P	A
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6058-19-468-010	<input type="radio"/>	<input type="radio"/>

360-degree photos

Objective: To give google maps viewers better visual understanding of the department.

These 360 degree photos are viewed more than 10000 times.

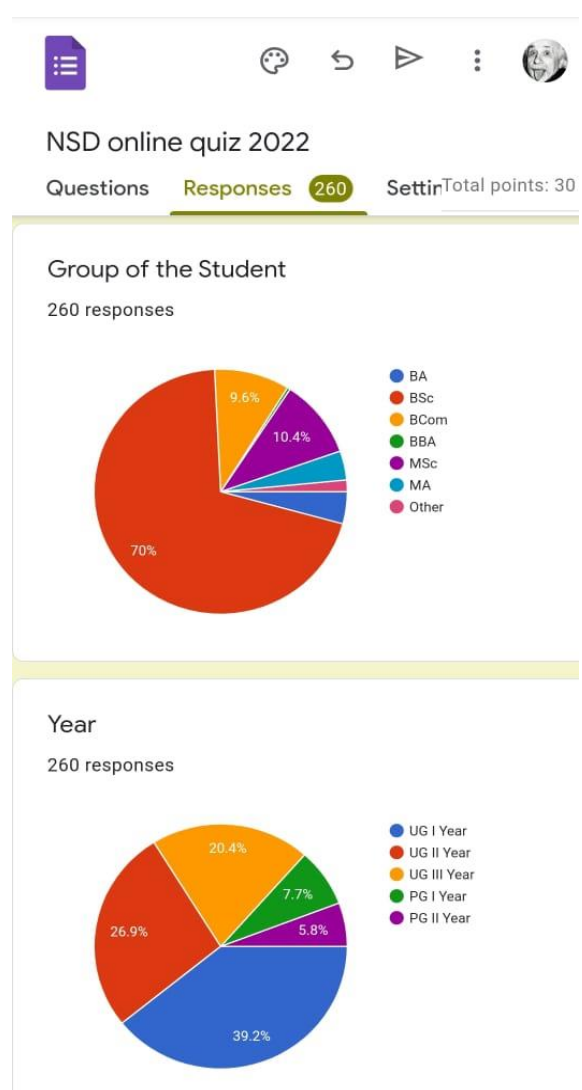
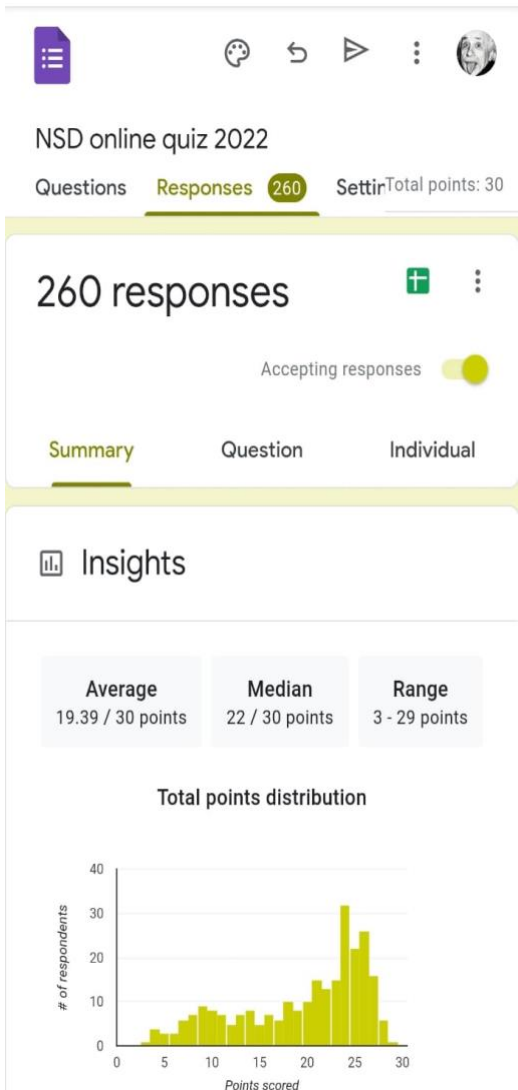


Online Quiz

Objective: Online quiz is conducted.

Date: 27 February 2022

No of students participated: 260



Augmented Reality in Education

Objective: To introduce Augmented Reality (AR) in Education

Date: 15 March 2022

No of students participated: 30

Sri P R Ratan Kumar, Assistant Professor in Physics, has demonstrated Augmented Reality (AR) in Education, the future of Education.





Best Practice: Conservation of Energy

The department follows green practices such as saving energy not wasting paper etc. The physics department maintains cleanliness and organization everywhere.

Faculty and students in the department switch off the lights and fans immediately after use.

P R Ratan Kumar has donated some plants for the College.

JIGNASA Student Study Project – 2022

Objective: Student Study Project

Date: 15 February 2022

No of students participated: 05

The department of physics under the guidance of Sri P R Ratan Kumar has conducted Student Study Project: Jignasa - 2022 with Five students from B.Sc. MPCs III year on Conservation of Energy using Sensors. The students have demonstrated conservation of energy using Photo sensors and motion sensors and thermal sensors.

YouTube Link: <https://youtu.be/co4frWpnOKY>



The following students have participated in this project.

P R Ratan Kumar	Mentor	Head & Assistant Professor
B Krishna	Student	BSc MPCs III year
B Umarani	Student	BSc MPCs III year
A Suyog	Student	BSc MPCs III year

S Jashanth	Student	BSc MPCs III year
S Rahul	Student	BSc MPCs III year

Energy Conservation Day 2021

The department has conducted energy conservation day on 14 December 2021.

Objective: To bring awareness about energy conservation to students using motion and photo sensors.

Date: 14 December 2021

No of students participated: 100



Save Energy campaign

Objective: To bring awareness about saving electrical energy

Date: 23.04.2022

No of students: 300

Awareness was brought to students to switch off fans and lights when there is no use.

Posters are stuck above switch boards in ground floor classroom and offices. The posters are made by reutilising one side waste papers of examination branch.





SAVE ⚡ ENERGY



P R Ratan Kumar M.Sc, M.Tech
Head & Assistant Professor
Department of PHYSICS



Turn Off Lights



Use LED BULBS



Reduce Reuse Recycle



Turn Off Tap



Use Natural Light



Think Before You Print

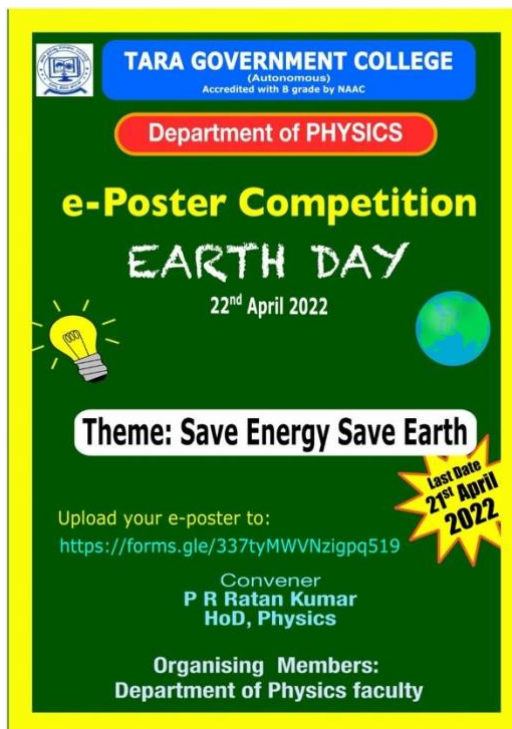


e-Poster Competition

Objective: The department has conducted e-Poster competition on the occasion of Earth day 2022.

Date: 22 April 2022

No of students participated: 04



TARA GOVERNMENT COLLEGE
(Autonomous)
Accredited with B grade by NAAC

Department of PHYSICS

e-Poster Competition
EARTH DAY
22nd April 2022

Theme: Save Energy Save Earth

Upload your e-poster to:
<https://forms.gle/337tyMWVNzigpq519>

Convener
P R Ratan Kumar
HoD, Physics

Organising Members:
Department of Physics faculty

Last Date
21st April 2022



Happy Earth day

Save Power \swarrow
Save Earth \searrow

Let's make our Earth Safer

Turn off your Lights for our Planet

A.Swathi
BZC 1st year
Rollno.05



Save energy
SAVE Earth

SAVE ENERGY
In OUR hands

21/04/2022 18:56
BSC [MzC] III Year

