

# Matoshri Gangamma Veerappa Chiniwar Arts, Commerce & Science College,

MUDDEBIHAL-586212. Dist. Vijayapur (Karnataka)

email: princmgvc@gmail.com \*

(Accredited with CGPA of 3.31 on seven point scale at 'A+' Grade)

oint scale at 'A+' Grade)

www.mgvcmbl.in \*

Ref. No. : .....

Date	:	 	 	

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# 6.2.1: The institutional Strategic/perspective plan is effectively deployed following are the deployment strategic and perspective plan during the year 2023-24

#### **Curriculum Development:**

During the year 01 faculty member is in the panel of BoS, Rani Channamma University, Belagavi and contributed in the revision and modification of course curriculum.

Introduced 05 value added certificate courses.

### Teaching and Learning:

Almost all the teachers engaged virtual mode of teaching using Zoom, Reach Mint, Google class, ppt, etc.

### Research and Development:

For the current academic year, faculty members have published 35 research articles in reputed academic journals, 01 no of book published.

### Industry interaction/collaboboration:

- 1. Chemistry department of our college has MoU with Balaji Sugar Industry, Yaragal.
- 2. MoU is signed by the Physics Department of our College with GFGC, Muddebihal.

M.G.V.C. Arts, Commerce & Science College MUDDEBIHAL-586212. Dist: Vijayapur.

Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.



# s. G. V. C. Vidya Prasarak Trust's, Matoshri Gangamma Veerappa Chiniwar Arts, Commerce & Science College,

MUDDEBIHAL-586212. Dist. Vijayapur (Karnataka)

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# **NOTICE**

Date: 19-07-2024

All the Chemistry (DSC) students and faculty members are hereby informed to attend the MoU activity, Guest lecture programme on "NEP Curriculum Project work on Sugar Industries" for B.Sc. VI Semester students organized by IQAC, the Department of Chemistry and Balaji Sugars and Chemicals Pvt. Ltd. Yaragal, on 26-07-2024 at 10:30 A.M. in Lecture Hall No: 14.

Head, Dept. of Chemistry,
M.G.V.C. Arts, Com. & Science College
MUDDEBIHAL - 586212.



M.G.V.C Arts, Commerce and Science College, Muddebihal



**Department of Chemistry** 

INDUSTRY-ACADEMIA INNOVATIVE PRACTICES

GUEST LECTURE PROGRAMME
(MoU Activity 2023-24)
ON

"NEP CURRICULUM
PROJECT WORK ON SUGAR
INDUSTRIES"

(B.Sc. VI Semester students)

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M.G.V.C. Arts, Com. & Science College
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M.G.V.C Arts, Commerce and Science College, Muddebihal
Department of Chemistry

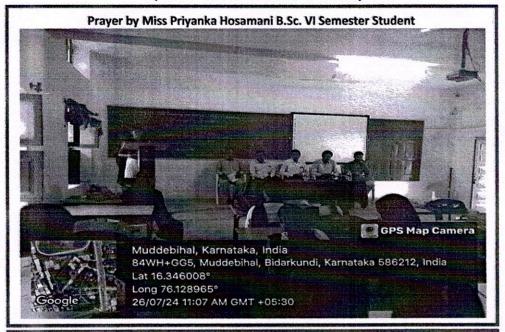
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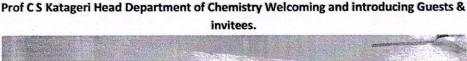
### INDUSTRY-ACADEMIA INNOVATIVE PRACTICES

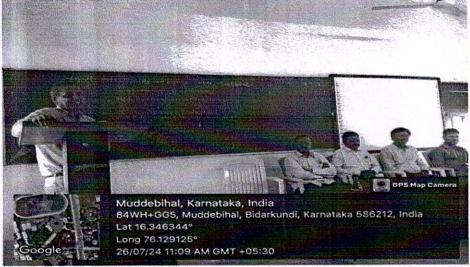
GUEST LECTURE PROGRAMME
(MoU Activity 2023-24)
ON

"NEP CURRICULUM PROJECT WORK ON SUGAR INDUSTRIES"

(B.Sc. VI Semester students)







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M.G.V.C. Arts Com. & Science College.

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Department of Chemistry

### **INDUSTRY-ACADEMIA INNOVATIVE PRACTICES**

GUEST LECTURE PROGRAMME
(MoU Activity 2023-24)
ON

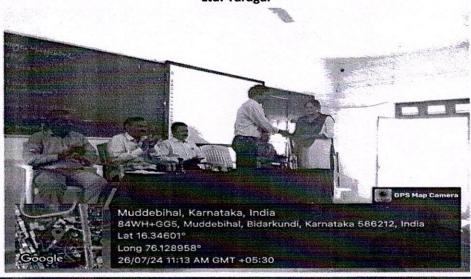
"NEP CURRICULUM PROJECT WORK ON SUGAR INDUSTRIES"

(B.Sc. VI Semester students)

Miss. Priyanka Hosamani offering flower to Shri. Alfhan Raj General Manager Balaji Sugars Pvt. Ltd. Yaragal



Miss. Swati Sulpi offering flower to Shri. S. P. Ainapur DGM. Balaji Sugers Pvt. Ltd. Yaragal



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M.G.V.C Arts, Commerce and Science College, Muddebihal Department of Chemistry

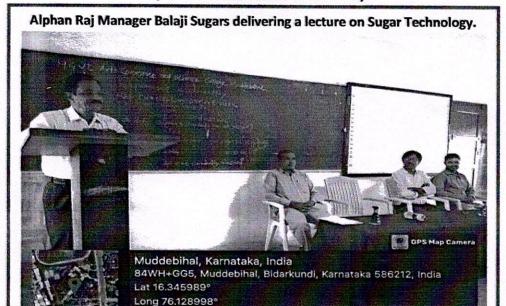
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GUEST LECTURE PROGRAMME (MoU Activity 2023-24)

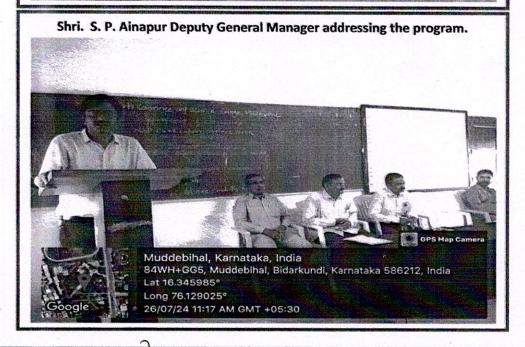
ON

"NEP CURRICULUM PROJECT WORK ON SUGAR INDUSTRIES"

(B.Sc. VI Semester students)



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M.G.V.C. Arts, Com. & Science College.
MUDDEBIHAL - 586212.



# S.G.V.C Vidya Prasarak Trust's M.G.V.C Arts, Commerce and Science College, Muddebihal Department of Chemistry

### **INDUSTRY-ACADEMIA INNOVATIVE PRACTICES**

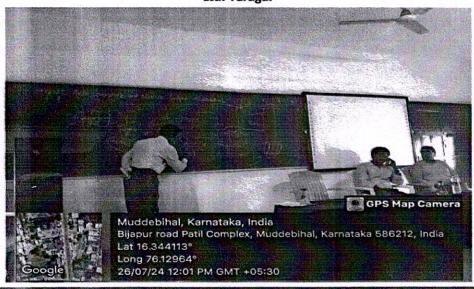
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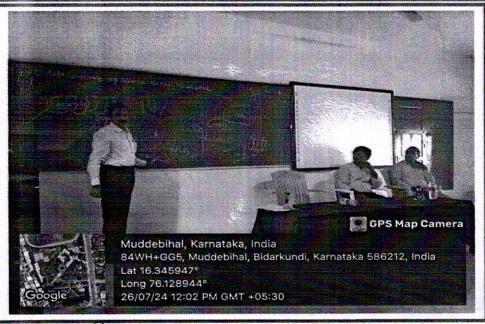
"NEP CURRICULUM PROJECT WORK ON SUGAR INDUSTRIES"

(B.Sc. VI Semester students)

A talk on manufacture of sugar by Shri , Alphan Raj Manager Balaji Sugers Pvt.

Ltd. Yaragal





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Department of Chemistry

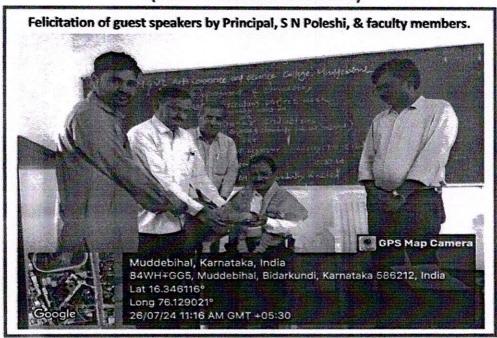
**INDUSTRY-ACADEMIA INNOVATIVE PRACTICES** 

GUEST LECTURE PROGRAMME (MoU Activity 2023-24)

ON

"NEP CURRICULUM PROJECT WORK ON SUGAR INDUSTRIES"

(B.Sc. VI Semester students)





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### INDUSTRY-ACADEMIA INNOVATIVE PRACTICES

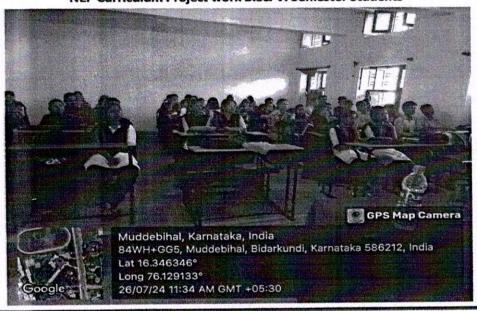
GUEST LECTURE PROGRAMME (MoU Activity 2023-24)

ON

"NEP CURRICULUM PROJECT WORK ON SUGAR INDUSTRIES"

(B.Sc. VI Semester students)

**NEP Curriculum Project work B.Sc. VI Semester Students** 





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tef. No. :	Date :

## REPORT OF GUEST LECTURE PROGRAMME (Department MoU Activity 2023-24)

Chemistry Department under MoU activities organized a guest lecture program on "NEP Curriculum Project work on Sugar Industries" for B.Sc. VI Semester Chemistry (DSC) students on 26-07-2024. The purpose of the guest lecture is to know the current trends and challenges of sugar technology in our country and also to prepare a project report with reference to Balaji Sugars and Chemicals Pvt., Ltd., Yaragal for submission at final year examination.

The guest lecture program was began with the prayer by Miss Priyanka. Hosamani., B.Sc. Final student. Prof C. S. Katageri Head, Department of Chemistry welcomed the dignitaries, students and invites, and then introduced the guests. Then a garlanding program. This was followed by the felicitation of guest speakers by Principal and faculty. The Honorable guest speaker and General Manager Shri. Alfhan Raj delivered a lecture covering growth, scope of sugar industries, present scenario and challenges of sugar industries in the country at the first session. Then Shri S P Ainapur Deputy General Manager highlighted about Balaji Sugars and Chemicals Pvt, Ltd., Yaragal, covering Establishment, Management, Sugarcane availabilities, Marketing and employment opportunities. Shri. Alfhan Raj spoke on Sugar manufacturing, by products, quality control of sugar and recent advancement in processing. He made clear all these aspects to the Project Students with a flow-Chart by chalk and talk method at the second session. Students interacted with Guest speakers. The President of the program principal, S. N. Poleshi pointed that Sugar industry is an important agro-based industry that imparts livelihood of sugar cane farmers and workers in sugar industries and called the students to organize more industrial programs and requested the factory authorities to extend their cooperation in carrying out the academic activities with the Chemistry department. Later the Guest speakers explained about project work, Report preparation etc., at the laboratory. Students were highly benefited by the MoU program. The program was concluded with vote of thanks by Shri U. A. Halyal. The project students Miss Shaheen Naikodi 11 final B.Sc. Project students and other semester Chemistry (DSC) students attended the program.

PRINCIPAL, M.G.V.C. Arts, Commerce & Science Colleg MUDDEBIHAL-586212. Dist: Vijayapuc Head, Dep.

M.G.V.C. Arts, Com. & Science ColGo-ordinator, MUDDER HAL - FACE Paral Quality Assurance Cell M.G.V.C. Arts, Commerce & Science College

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#### DEPARTMENT OF CHEMISTRY

### Notice

Department of chemistry organized an industrial visit (MoU Activity) to Shri Balaji Sugars and Chemicals Pvt. Ltd Yaragal for B.Sc VI Semester Chemistry (DSC) Students on 29/07/2024 at 09:30 AM. All VI semester students are informed to attend the Industrial visit as it is a compulsory activity for project work.

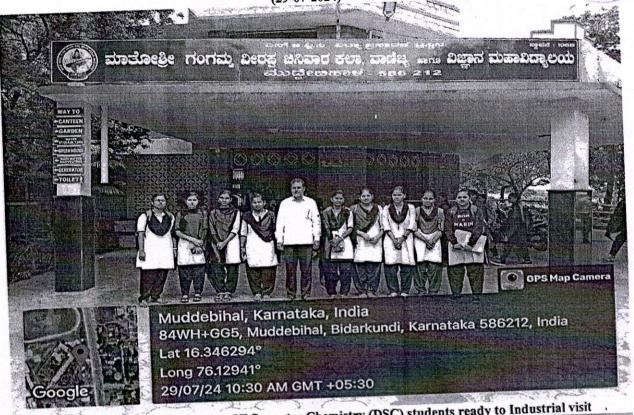
Date: 20/07/2024

Head, Dent of Chemistry,
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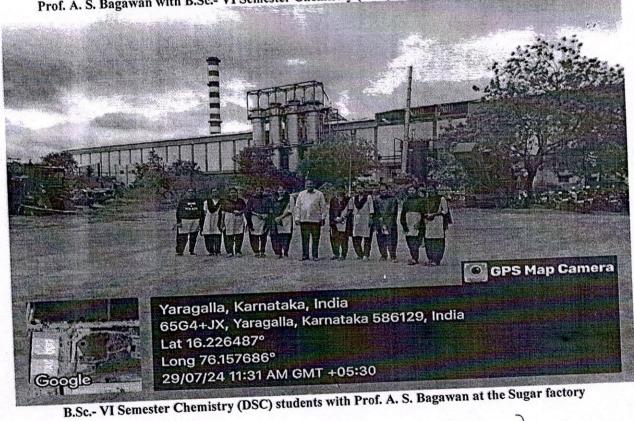
### SGVC VPT'S M.G.V.C.ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL DEPARTMENT OF CHEMISTRY INDUSTRIAL VISIT

BALAJI SUGARS AND CHEMICALS. Pvt, Ltd, YARAGAL ( MoU activity 2023-24) (29-07-2024)



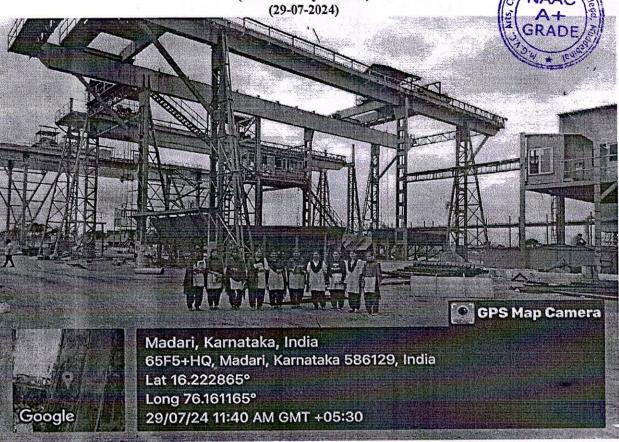


Prof. A. S. Bagawan with B.Sc.- VI Semester Chemistry (DSC) students ready to Industrial visit

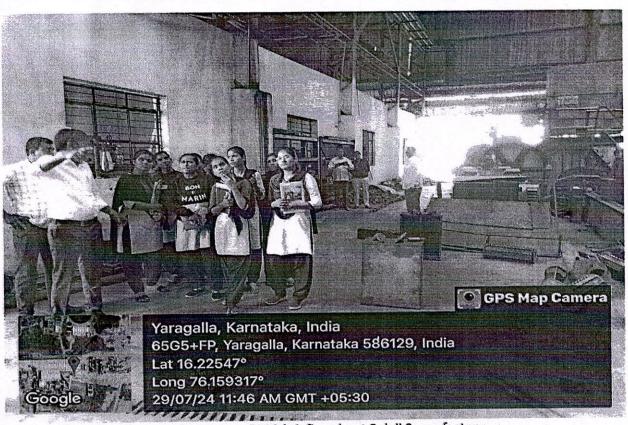


Head, Dept. of M.G.V.C. Arts, Com. & Science College MUDDEBIHAL - 536212,

INDUSTRIAL VISIT
BALAJI SUGARS AND CHEMICALS. Pvt, Ltd, YARAGAL
( MoU activity 2023-24)
(29-07-2024)

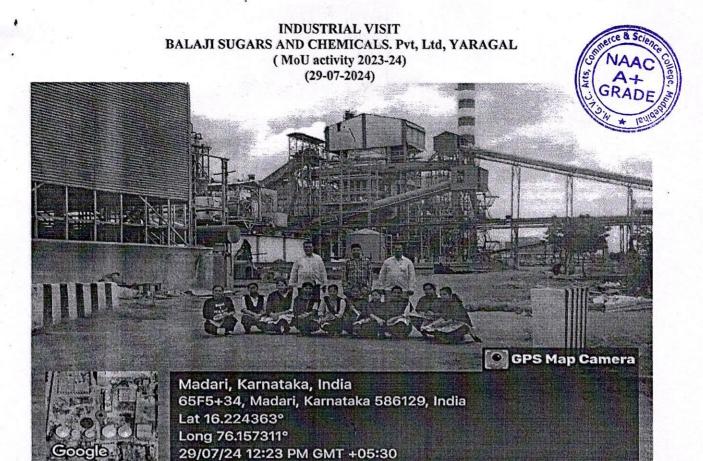


Students watching the weighing and unloading sugarcane place at Balaji Sugar factory

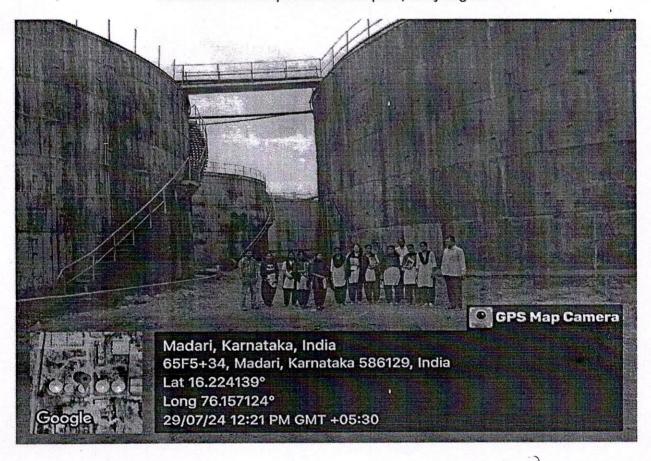


Shri. S. P. Ainapur DMG briefing about Balaji Sugar factory.

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Students and faculty at the Ethanol plant, Balaji Sugars.

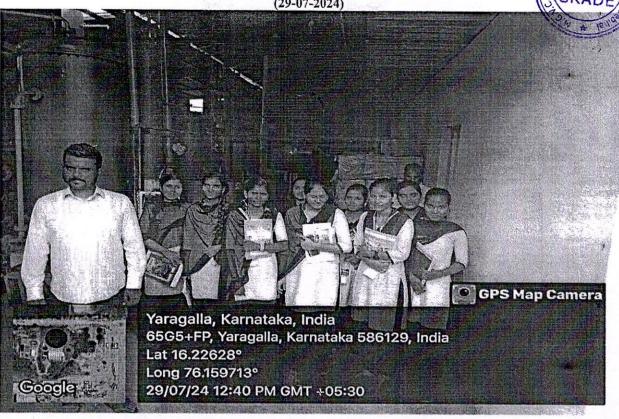


Head, Dept. of Chemistry.

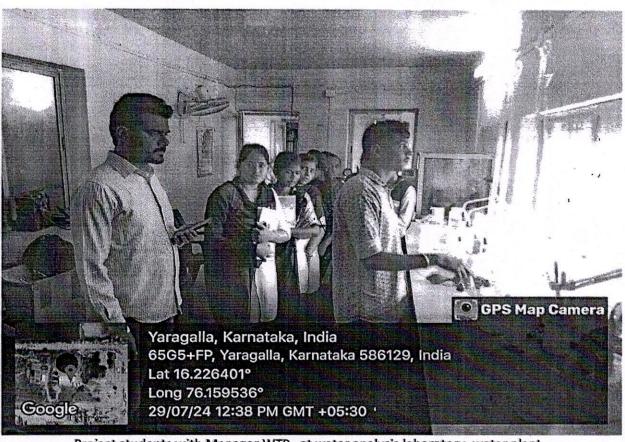
M.G.V.C. Arts, Com. & Science College

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# INDUSTRIAL VISIT BALAJI SUGARS AND CHEMICALS. Pvt, Ltd, YARAGAL ( MoU activity 2023-24) (29-07-2024)



Students and faculty with Shri. Santosh Chippalakatti Manager WTP., at water plant.



Project students with Manager WTP., at water analysis laboratory, water plant.

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# INDUSTRIAL VISIT BALAJI SUGARS AND CHEMICALS. Pvt, Ltd, YARAGAL ( MoU activity 2023-24) (29-07-2024)





Students and faculty at Krishna River and Neelambikadevi Temple Near Tangadagi



Project students enjoying the sightseeing of Krishna River and Neelambikadevi Temple.

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# REPORT OF INDUSTRIAL VISIT

(MoU Activity 2023-24)



Visit to the industry is an important and effective method of learning through participation. As a part of curriculum and also as an activity of our department MoU, The Chemistry department organized an industrial visit to Balaji Sugars and Chemicals Pvt., Ltd., Yaragal on 29-07-2024 for B.Sc- VI Semester Chemistry (DSC) students., The purpose of this time industrial visit is to visit sugar industry and to prepare project report on Balaji Sugars. To be assessed at the university final examination.

With the prior permission of principal and telephonic message, Manager Balaji Sugar Factory, the team of 11 Students and 03 faculty members started journey from the college campus at 10:30 am. The team reached the sugar factory around 11.00 am. At the very beginning of the visit, the team met Shri. S. P. Ainapur (DGM) in the premises of the factory. The Manager interacted with students and faculty and then took a factory rounds and explain in detail about insights of the factory, manufacturing process, different machines and packing of sugar etc. The students watched the machines and different plants. The factory was well equipped with the advance and new technology. The Manager discussed the availability of raw materials, crushing and manufacture of sugar and environmental issues of factory with the students. Then students visited ethanol plant, water plant, water effluent plant and laboratories. At the water plant students interacted with Shri. Santosh Chippalakatti. Manager WTP. At the laboratories of water plant the Manager discussed physico- chemical parameters of water and their determination. After this the students and faculty met Honorable Managing Director. Students congratulated the MD., and authorities of factory for giving the visit opportunity. The visit was very informative and students were highly benefited for their project work. The team finished the visit at 2.00 pm. By proposing vote of thanks to all who helped during the visit. The team left the sugar factory and travelled for sightseeing of Krishna River and Neelambikadevi Temple near Tangadagi Village. All students and faculty enjoyed the sightseeing and all had their lunch. After some time the team left the Temple and travelled to Muddebihal and reached the college at 4;00 pm.

With this activity students come out with a practical knowledge of sugar production, marketing, human resources, industry opportunities. Pollution control measures all which help for their project report preparation.

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# M.G.V.C Arts, Commerce and Science College, Muddebihal

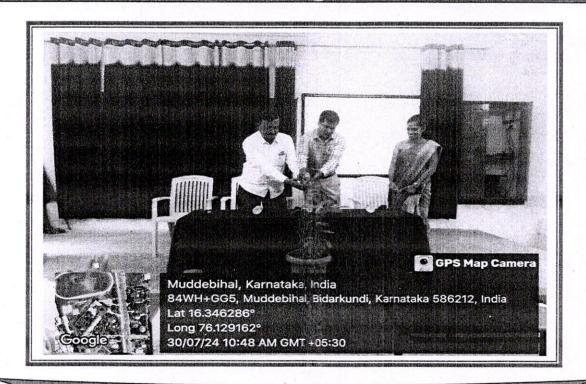
**Department of Physics** 

**ORGANISED** 

SPECIAL GUEST LECTURE (MOU)

ON

"NUCLEAR RADIATION, DETECTION TECHNIQUES
AND APPLICATIONS"



Date: 30-07-2024

Time: 10 30am





# S. G. V. C. Vidya Prasarak Trust's, Matoshri Gangamma Veerappa Chiniwar Arts, Commerce & Science College,

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Ref. No. :		Date :	

# **NOTICE**

Department of Physics organized Special Guest Lecture topic is "NUCLEAR RADIATION, DETECTION TECHNIQUES AND APPLICATIONS" by Megharaj B. Naik Government first grade college Muddebihal on 30.07.2024 at 10.30.am in Conference Hall. Hence all the teaching, non teaching staff members and students are here by informed to attend the function.

M.G.V.C. Arts, Commierce & Science College MUDDEBIHAL-586212. Dist: Vijayapur.



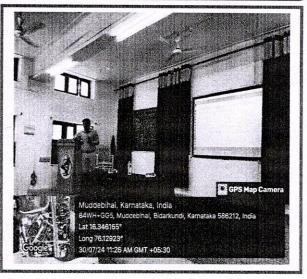
M.G.V.C Arts, Commerce and Science College, Muddebihal **Department of Physics ORGANISED** 

SPECIAL GUEST LECTURE

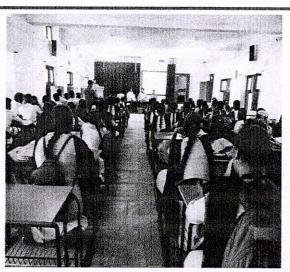
ON

# "NUCLEAR RADIATION, DETECTION TECHNIQUES **AND APPLICATIONS"**













M.G.V.C Arts, Commerce and Science College, Muddebihal

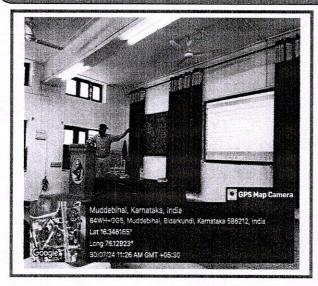
# **Department of Physics**

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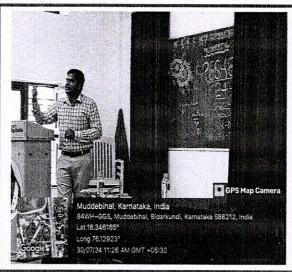
SPECIAL GUEST LECTURE

ON

# "NUCLEAR RADIATION, DETECTION TECHNIQUES AND APPLICATIONS"











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Ref.	No. :			Date :	

DEPARTMENT OF PHYSICS
ORGANISED
SPECIAL GUEST LECTURE
ON

"NUCLEAR RADIATION, DETECTION TECHNIQUES AND APPLICATIONS"

## **REPORT**

"NUCLEAR RADIATION, DETECTION TECHNIQUES AND APPLICATIONS" by Megharaj B. Naik Government first grade college Muddebihal on 30.07.2024 at 10.30.am in Conference Hall. Prof. S.N. Poleshi, Principal presided over the function. Prof. M.I. Biradar, IQAC Coordinator, Prof. S.M. Nimbalagundi and all other teaching and non teaching staff members graced the occasion. Prof. A.I. Akki proposed vote of thanks.

PRINCIPAL,
M.G.V.C. Arts, Commerce & Science College,
MUDDEBTHAL-586212. Dist: Vijayapur.

NAAC GRADE GRADE

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Room No : .....

# S. G. V. C. Vidya Prasarak Trust's, MATOSHRI GANGAMMA VEERAPPA CHINIWAR ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL.

Subject: Physics P-II	Date :	Time:
Class: B.SC-XISCM	ATTENDANCE REPORT	Ir Supervisor :

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14	UI5NU2150026	Daneswari H. Tahwar	alway.
15	UISNU21 50061	Rangita Partas	R.K. puttar.
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19	415NU2150006	Satish m. Biradas	S.m.Bidadas
20	UISNUELS0048	Marjurath Kevei	Orliver
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Total Nulli	or or candidates Present		Name & Signature

NAAC GRADE

Room No : .....

Block No.

S. G. V. C. Vidya Prasarak Trust's,

MATOSHRI GANGAMMA VEERAPPA CHINIWAR ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL

Subject: Physica	Date:	
Class: B.Sc-WSIM	ATTENDANCE REPORT	Time :

	DEGREE _		02 - 202
Roll No.	University Seat No.	Name of the Candidate	Signature
1	U15NJU22S0008	Sounga N. Dhavalage	
2	U151VU 225003L	yallamma B. mulimani	Y.B. muliman
3	U15NU2250032	Sushmiter N. Saljan	200 -
4	U15N1U2250042		
5	UISNU2250009	Mallamma B Mangaloor	M B Mangalow
6	VISNU2250025	Sharada L Nalatwada	
7	UISN 0225002	Pallavi s Sajjan	0
		Ambika P Pujari	A. P. Poolani
9	UISNU 225000	Mallika B Alakki	
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### What is Nuclear Radiation??

- Nuclear radiation refers to emission of particles (like alpha, beta, gamma & neutrons
- From the nucleus of an atom during nuclear reaction or by an unstable element.
- Spontaneous emission of such particles is termed as Radioactivity.

## Who discovered Radioactivity??

- Antoine Henri Becquerel
- Worked with Uranium
- Noticed Phosphorescence caused film exposure after leaving Uranium in the Sun
- Noticed same thing happen on cloudy days

## Who coined the word Radioactivity??

- Marrie Curie with her husband Pierre, discovered Radium & coined the term Radioactive
- First woman to win two Nobel Prizes Pierre and Marrie Curie
- Extracted two previously unknown and highly radioactive elements from pitchblende named

## Why Are Elements Radioactive??

Unstable nucleus:

- Has excess energy
- Wants to go to ground state
- Becomes stable by emitting ionizing radiation
- What dose ionizing or ionization mean??



### **Alpha Radiation**

- Consists of 2 protons & 2 neutrons, nothing but a Helium nucleus
- Electric charge +2
- Deflected by electric & magnetic field, deflection indicates they are positively charged
- They can ionize air or gas through which they pass & comparatively much higher than beta gamma radiations
- They have low penetration power compared to all other radiation
- They affect photographic plate
- $\bullet$  They cause fluorescence when they incident on certain substances like ZnS & Barium Platinocynide

### **Beta Radiation**

- They are nothing but fast-moving electrons or positrons with high kinetic energy, emitted from radioactive atomic nucleus
- Electric charge is -1
- Deflected by electric & magnetic field, deflection indicates they are negatively charged
- They have comparatively 100 times less ionizing power than alpha radiation
- They have high penetration power compared to alpha radiation but less compared to gamma
- They affect photographic plate
- They cause fluorescence when they incident on certain substances like ZnS & Barium Platinocynide



## **Gamma Radiation**

- Electric charge is zero & rest mass is zero
- They are not deflected by electric or magnetic fields
- They have least ionizing power compared to alpha & beta radiation
- They have highest penetration compared to alpha & beta radiation
- They affect photographic plate
- They cause fluorescence when they are incident on certain substances like ZnS & Barium Platinocynide

# **Detection techniques of Nuclear Radiation**

- Many instruments have been developed to detect radiation
- Based on knowledge of how radiation interacts with matter Excitation Ionization Radiation
- Charged particles cause ionization directly through Columbic interactions
- EM radiation produces ion pairs in matter Photoelectric effect Compton scattering Pair production
- Neutrons produce ions through secondary mechanisms

# Nuclear radiation detection instruments

- G. M counter
- Ionisation chamber
- Proportional counter
- Scintillators
- Semiconductor detectors



# **Applications**

- 1) Food irradiation (to increase the life of stored food)
- 2) Fruits & vegetables irradiation (to increase the ripening period of fruits & to avoid sprouting in vegetables)
- 3) Crop improvement by mutation technique (to increase yield, disease resistance, better nutrition)
- 4) Insect pest control by sterile insect technique.
- 5) Radiotherapy used for treating cancer A



# Matoshri Gangamma Veerappa Chiniwar Arts, Commerce & Science College,

MUDDEBIHAL-586212. Dist. Vijayapur (Karnataka)

(Accredited with CGPA of 3.31 on seven point scale at 'A+' Grade

\* email : princmgvc@gmail.com \* www.mgvcmbl.in \*

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Ref. No. :	Date :
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6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, etc.

College has a cooperative Management. Our esteemed Management regularly visits the Institutions and guides the staff and provides all essential provisions and facilities for the smooth functioning of curricular, co-curricular and extracurricular activities.

The Principal guides the college in academic process, admission, staff recruitment, and administrative matter he is the Chairman of staff council, internal quality assurance cell, anti raging cell, disciplinary and the library advisory committee. The internal quality assurance cell helps the Principal in overall administration which involves the planning of the academic calendar and its implementation. The staff council and faculty members play an important roles in executing the curricular, co-curricular and extracurricular programme.

The college has Grievances Cell for teachers and students. The faculty members express their constrains regarding teaching- learning and other matters of concern the non teaching staff can share their apprehensions directly to the Principal and Management.

In addition to the above mentioned factors, staff are involved as a convener in different committees i.e., IQAC Examination Committee, Admission Committee, Library Committee, Student Grievance Redressal Cell, Prevention of Sexual Harassment, Women Empowerment Cell, Research Committee, Career Guidance and Placement Cell, etc.

Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.

PRINCIPAL,
M.G.V.C. Arts, Commerce & Science College
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