Ph: 0863-2236470



## ST. ANN'S COLLEGE FOR WOMEN

(A Catholic Christian Minority Institution Affiliated to Acharya Nagarjuna University) (Recognized the College Under Section 2(f) of the UGC Act. 1956 - New Delhi)

AMARAVATHI ROAD, GORANTLA, GUNTUR - 522 034. A.P.

## DEPARTMENT OF CHEMISTRY CERTIFICATE COURSE

St. Ann's College for Women /U.G Chemistry Dept/CERTIFICATE COURSE 22-23

#### **NOTICE**

All the IV semester students of II B.Sc (MPC) Chemistry are informed that ADD ON COURSE on "Radioisotopes- Uses" classes for 30 hours has been scheduled to commence from 19<sup>th</sup> to 24<sup>th</sup> July 2023 The classes are conducted in Chemistry Lab of Annamma block. So, the interested students are informed to enroll their names on or before 15<sup>th</sup> July 2023.

Yours Faithfully,

To
All teaching staff of chemistry
Department for circulation
Department notice board

PRINCIPAL

St. Ann Principale for Women GORANTLA, GUNTUR-522 034

Affiliated to
Acharya
Nagarjuna
University

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Ann's College

Head of Dept. of Chemistry St. Ann's College for Women GORANTLA, GUNTUR-522034

#### Syllabus

- 1. Introduction to Radioactive elements, tracer elements, Isotops.
- 2. Radio active disintegration alpha, beta, Gama emissions and stable nuclei
- 3. Electro Magnetic radiations UV, IR, NMR, ESR ect..
- 4. Instrumentation
- 5. Applications of radio isotopes in industry.
- 6. Applications of radio isotopes in medicine
- 7. Applications of radio isotopes in agriculture.

#### **Electromagnatic Radiations:**

#### Diagnositic radiopharmaceuticals

Every organ in our bodies acts differently from a chemical point of view. Doctors and chemists have identified a number of chemicals which are absorbed by specific organs. The thyroid, for example, takes up iodine, whilst the brain consumes quantities of glucose. With this knowledge, radiopharmacists are able to attach various radioisotopes to biologically active substances. Once a radioactive form of one of these substances enters the body, it is incorporated into the normal biological processes and excreted in the usual ways.

Diagnostic radiopharmaceuticals can be used to examine blood flow to the brain, functioning of the liver, lungs, heart, or kidneys, to assess bone growth, and to confirm other diagnostic procedures. Another important use is to predict the effects of surgery and assess changes since treatment.

The amount of the radiopharmaceutical given to a patient is just sufficient to obtain the required information before its decay. The radiation dose received is medically insignificant. The patient experiences no discomfort during the test and after a short time there is no trace that the test was ever done. The non-invasive nature of this technology, together with the ability to observe an organ functioning from outside the body, makes this technique a powerful diagnostic tool.

A radioisotope used for diagnosis must emit gamma rays of sufficient energy to escape from the body and it must have a half-life short enough for it to decay away soon after imaging is completed.

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Acharya
Nagarjuna
University

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GORANTLA, GUNTUR-522 034

#### Practical's Knowledge - Visit to diagnostic centres

- Visit to diagnostic centres
- 1. Thyroid Scam Use of Iodine
- 2. Tracer Elements used in detection of disease Technician 99
- Visit to fertilisers store
- 1. Isotopes Used in Agricultural fertilisers.
- 2. Use of Agriculture radioactive Isotopes Pesticides
- 3. Radio Active traces from soil for plants uptake Calcium
- Practical Industrial Application
  - 1. Pipe line lick location sodium24

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St. Ann's College for Women GORANTLA, GUNTUR-522 034 PRINCIPAL



GORANTLA - GUNTUR

#### DEPARTMENT OF CHEMISTRY ADD-ON COURSE

#### RADIO ISOTOPES ~ USES IN INDUSTRY & MEDICINE

Attendance statement 2022-23

Dates of Course

19th Jung to 24th Jung 30 hrs

Hours

Class/Group

II MPC

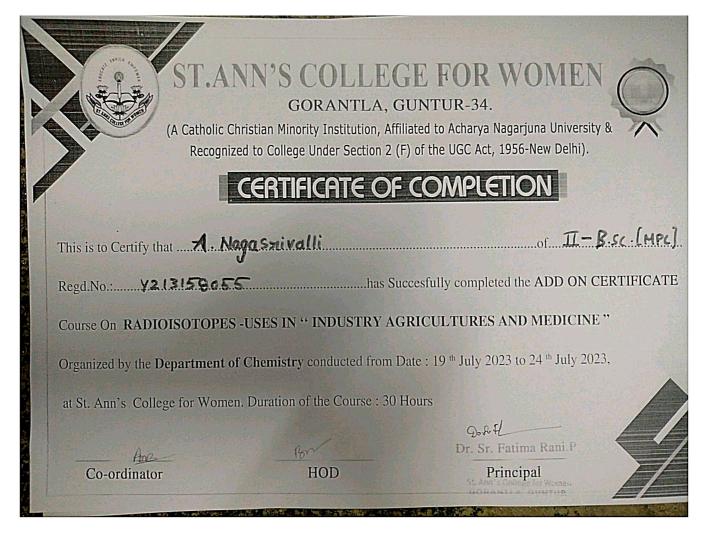
			Dates &	signatu	res 🖯	9:00to1	2:00&1:	00to3:00
S.No	Name of the Student	Hall ticket No	28 <sup>th</sup> June	30 <sup>th</sup> 20 June	21 <sup>st</sup> July	22 <sup>nd</sup> July	23 <sup>rd</sup> July	24 <sup>th</sup> July
1.	A. Naga Snivalli	Y213158055	P	P	P	P	P	P
2.	A·Naga Srivalli Ch. Hadassa	4213158056	P	P	P	P	P	P
3.	D. Mahima Rachel		P	P	P	P	P	P
4.	D. Sxuthi	4213158058	P	P	P	P	P	P
5.	D. Anwadha	4213158059	P	P	P	P	P	P
6.	D. Kalyani	4213158060	P	P	P	P	P	P
7.	G. Kavya	7213158061	P	P	P	P	P	P
8.	G. Swarna latha	4213158062	P	P	P	P	P	P
9.	k. Pujitha	4213158063	P	P	P	Р	P	P
10.	K. H. Mary Jones	7213158064	P	P	P	P	P	P
11.	K. Naga Nandhini	4213158065	P	P	P	P	P	P
12.	M. Lavanua	Y213158066	P	P	P	P	P	P
13.	M. Preethi	7213158069	P	P	P	P	P	P
14.	P. Tsiveni	4213158040	P	P	P	P	P	P
15.	P. Haxi Ka	4213158071	P	P	P	P	P	P
16.	R. Maina	4213158072	P	P	P	P	P	P
17.	Sk-Naga Sadika	Y213158073	P	P	P	P	P	P
18.	Sk. Neha	4213158074	P	P	P	P	P	P
19.	Sd. Suhana	4213158075	P	P	P	P	P	P
20.	T. Gopika	4213158076	P	P	P	P	P	P
21.	T. Likitha Mary.	Y213158077	P	P	P	P	P	P.
22.	J							



Bn Head of Dept. of Chemistry St. Ann's College for Women GORANTLA, GUNTUR-522034.



PRINCIPAL St. Ann's College for Women GORANTLA, GUNTUR-522 034







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This is to Certify that	G. Kavya	of <u>I</u> I-B	:Sc. CMPCJ
Regd.No.: Ya.13	. \$80.6.1 has S	uccesfully completed the ADD ON CE	RTIFICATE
Course On RADIOISOTOP	ES -USES IN " INDUSTRY A	GRICULTURES AND MEDICINE"	,
Organized by the <b>Departmen</b>	t of Chemistry conducted from	Date: 19 th July 2023 to 24 th July 2023.	,
at St. Ann's College for Wor	nen. Duration of the Course: 30	Hours	<b>A</b> .
Co-ordinator	4600	Dr. Sr. Fatima Rani.P	
Co-ordinator	HOD	Principal St. Sam Scribbs of Grances	



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Regd.No.:	has Su	ccesfully completed the ADD ON CER	ΓΙΓΙCATE
Course On RADIOISOTOPES -U	USES IN " INDUSTRY AC	GRICULTURES AND MEDICINE "	
Organized by the <b>Department of C</b>	Chemistry conducted from I	Date: 19 th July 2023 to 24 th July 2023.	•
at St. Ann's College for Women.	Duration of the Course : 30	Hours	
On the second	120-	Dr. Sr. Fatima Rani.P	
Co-ordinator	HOD	Principal	

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Dr. Sr. Fatima Rani.P	
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ate: 19 th July 2023 to 24 th July 2023,	
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cesfully completed the ADD ON CERT	IFICATE
of <u>D</u> -B:sc	[MPC]
	nte: 19 th July 2023 to 24 th July 2023,  ours  Ook. Folia  Dr. Sr. Fatima Rani.P



Recognized to College Under Section 2 (F) of the UGC Act, 1956-New Delhi).

This is to Certify that	P Triveni	or II-B-sc-[MP	۵.]
Regd.No.:	Y213158070 h	as Succesfully completed the ADD ON CERTIFICA	TE
Course On RADIOI	SOTOPES -USES IN " INDUSTR	Y AGRICULTURES AND MEDICINE "	
Organized by the Dep	partment of Chemistry conducted fr	om Date: 19 th July 2023 to 24 th July 2023.	
at St. Ann's College	for Women. Duration of the Course	: 30 Hours	
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Co-ordinator	НОД	Principal	



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This is to Certify that	P. Haxika	of	II-B:Sc:[MPC]
Regd.No.:	Y213158071 has Succesful	ly completed the ADD (	ON CERTIFICATE
Course On RADIOIS	SOTOPES -USES IN " INDUSTRY AGRICU	LTURES AND MEDIC	CINE "
Organized by the <b>Dep</b>	partment of Chemistry conducted from Date: 19	9 <sup>th</sup> July 2023 to 24 <sup>th</sup> Jul	y 2023,
at St. Ann's College	for Women. Duration of the Course: 30 Hours		
Co-ordinator	HOD	Dr. Sr. Fatima Ranid  Principal	



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## CERTIFICATE OF COMPLETION

This is to Certify that	K. Naga	Sadhika	of D-B	. Sc. EMPCT
	0			

Regd.No.: Y213158073 has Successfully completed the ADD ON CERTIFICATE

Course On RADIOISOTOPES -USES IN "INDUSTRY AGRICULTURES AND MEDICINE"

Organized by the Department of Chemistry conducted from Date: 19th July 2023 to 24th July 2023,

at St. Ann's College for Women. Duration of the Course: 30 Hours

Co-ordinator

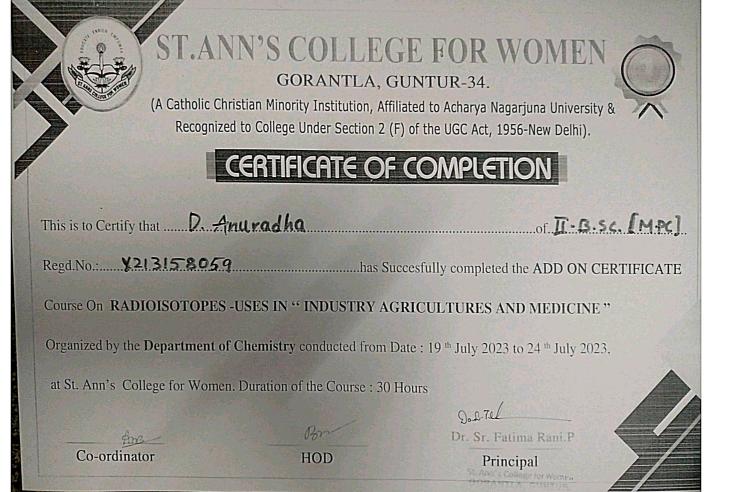
HOD

Dr. Sr. Fatima Rani.P

Principal

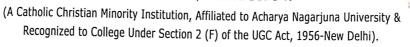
Ann's College for Women





# ST.ANN'S COLLEGE FOR WOMEN GORANTLA, GUNTUR-34.

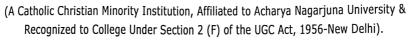




Co-ordinator	HOD	Principal	
Co-ordinator	HOD	Dr. Sr. Fatima Rani. P	
at St. Ann's College for Wome	en. Duration of the Course : 30	Hours	
Organized by the <b>Department</b>	of Chemistry conducted from	Date : 19 th July 2023 to 24 th July 202	3,
Course On RADIOISOTOPE	S -USES IN " INDUSTRY A	GRICULTURES AND MEDICINE	,,,
Regd.No.: Y2131	SECCO has S	uccesfully completed the ADD ON C	CERTIFICATE
This is to Certify that	2. Kalyani	of I-B:	SC. [MPC]







This is to Certify that	9. Snuthi	or I-B:S	c.CMPc]
Regd.No.: Y213151	30 <b>5 8</b> has Su	accesfully completed the ADD ON CE	RTIFICATE
Course On RADIOISOTOPES	-USES IN " INDUSTRY AC	GRICULTURES AND MEDICINE "	,
Organized by the <b>Department of</b>	Chemistry conducted from I	Date: 19 th July 2023 to 24 th July 2023,	,
at St. Ann's College for Women	. Duration of the Course : 30		
51V6	HOD	Os & Fetin V Dr. Sr. Fatima Rani.P	
的第二 Co-ordinator	HOD	Principal	

# ST.ANN'S COLLEGE FOR WOMEN GORANTLA, GUNTUR-34.



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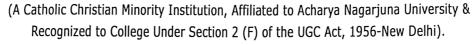
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at St. Ann's College for Women	. Duration of the Course : 30 I	lours	
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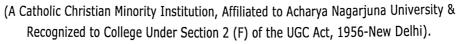
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Regd.No.: Ya	13158066 has S	uccesfully completed the ADD ON CF	ERTIFICATE
This is to Certify that	M. Lavanya	ofof0f	Sc. [MPC]

GORANTLA, GUNTUR-34.



This is to Certify thatK	Hadassah Mary J	ones of I-B	B.Sc. [MPC]
Regd.No.: Y2.13.158	ros s	uccesfully completed the ADD ON C	ERTIFICATE
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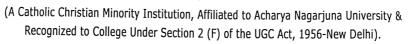




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at St. Ann's College for Women. I	Duration of the Course: 30		
		Dr. Sr. Falina Rani.P	
d122-		Dr. Sr. Fatima Rani.P	
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## ST.ANN'S COLLEGE FOR WOMEN GORANTLA, GUNTUR-34.







Co-ordinator	HOD	Principal	
Co-ordinator	Por-	Dr. Sr. Patima Kani.P	
at St. Ann's College for Wome	n. Duration of the Course : 30	Hours	
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Regd.No.: Yal315	8063 has S	uccesfully completed the ADD ON (	CERTIFICATE
This is to Certify that	K. Poojitba	of <u>T</u> -	B.Sc. CMPC]



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This is to Certify that	T. Likhitha	Mary of I	-B.Sc. [MPC]
Regd.No.:	Y213158077	has Succesfully completed the ADD O	N CERTIFICATE
Course On RADIOISOT	OPES -USES IN " INDUST	CRY AGRICULTURES AND MEDICI	NE"
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at St. Ann's College for Women. Duration of the Course : 30 Hours			
Ang.	Pen	Dr. Sr. Fatima Rance	
Co-ordinator	HOD	Principal	

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This is to Certify that	T: Gopika	of <u>D</u> -Be	sc. [MPC]
Regd.No.:	Y213158076has	Successfully completed the ADD ON Cl	ERTIFICATE
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at St. Ann's College for W	Vomen. Duration of the Course : 3	0 Hours	
H1112	Pare	QwSv.W Dr. Sr. Farina Ram.P	
Co-ordinator	HOD	Principal	



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This is to Certify that	SD: Suhana	of0f	B:Sc[MPc]
Regd.No.:	Y213156075 has Su	ccesfully completed the ADD ON CE	ERTIFICATE
Course On RADIOISO	TOPES -USES IN " INDUSTRY AC	GRICULTURES AND MEDICINE	19
Organized by the <b>Depart</b>	ment of Chemistry conducted from I	Date: 19 th July 2023 to 24 th July 2023	i <b>.</b>
at St. Ann's College for	Women. Duration of the Course : 30	Hours	
નેજું Co-ordinator	HOD	Dr. Sr. Fatima Kam.P  Principal	

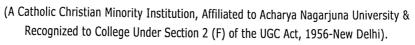




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This is to Certify that	Sk. Neha	of <u>1</u> 1-	B. Sc. [MPC]
Regd.No.:	<b>Ya13158079</b> has Succ	esfully completed the ADD ON C	CERTIFICATE
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at St. Ann's College for W	omen. Duration of the Course : 30 Ho		
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Co-ordinator	НОД	Principal	





Co-ordinator	HOD	Principal	
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