# **DEPARTMENT OF CHEMISTRY**



#### **VISION:**

- > To offer a high quality of undergraduate and postgraduate curriculum.
- > To improve employment opportunities and entrepreneurship skills of students.

## **MISSION:**

- > To Spread the knowledge of Chemistry through education for the benefit of society.
- > To create Research Orientation among students for Nation Building.

## **OBJECTIVES:**

- > an appreciation of the applications of chemistry in daily life.
- > an understanding of the concepts and theories in chemistry.
- > help students to develop research knowledge of chemistry.
- > help students to solve problems involving chemistry.
- > help students to understand principles involved in various analytical techniques and their uses
- > help students to understand the importance of chemical elements of periodic table and their physical and chemical properties.

# **FACULTY**

S.No	Name of the Teacher	Qualification	Specialization	Designation	Profile	Vidwan ID
1.	Dr. G. Pranitha (HOD)	M.Sc ,Ph.D	Organic Chemistry	Assistant professor	view document	244903
2.	M. Prabhavathi	M.Sc; NET, (Ph.D)	Analytical Chemistry	Assistant professor	view document	244809
3.	K. Saritha Rani	M.Sc, NET (Ph.D)	Organic Chemistry	Assistant professor	view document	244806
4.	Dr. Rafiya Sultana	M.Sc , Ph.D	Organic Chemistry	Assistant professor	view document	84255
5.	N.Satyajit Raj	M.Sc., SET,(Ph.D)	Inorganic Chemistry	Assistant professor	view document	-

# 1. BOS: view document

#### 2. PROGRAMMES & COURSES OFFERED:

B.Sc Chemistry:
Mathematics-physics-chemistry,

Mathematics-chemistry-Computer science,

Botany-Zoology-chemistry,

Biotechnology-Zoology-chemistry,

Microbiology-Zoology-chemistry,

Microbiology-Botany-chemistry, Biotechnology-Botany-chemistry,

AppliedNutrition-Zoology-chemistry,

AppliedNutrition-Botany-chemistry,

AppliedNutrition-Microbiology-chemistry,

Micribiology-Biotechnology-chemistry,

computer science-zoology-chemistry,

Genetics-zoology-chemistry,

Genetics-Botany-chemistry,

**M.sc(Organic Chemistry)** 

# 3. CURRICULUM

Programme Specific Outcomes (PSO): view document

Course Outcomes (CO): view document

Syllabus: view document

# 4. SEMINARS/WORKSHOPS/CONFERENCES/SYMPOSIUMS ORGANIZED:

## view document

# 5. Jignasa Projects of the department:

2017-18 Jignasa Project: view document

2019-20 Jignasa Project: <u>view document</u>

2021-22 Jignasa Project: view document

## 6. YouTube channel:

https://www.youtube.com/channel/UC4N2mNbCyya4UzXz8GalbMQ

7. e-Adhyayan Kosh: view document

- 8. ACTIVITIES CONDUCTED: view document
- 9. TEACHER ACHIEVEMENTS:

#### **Books\Chapters Published:**

Two text books were published by faculty (Dr.G.Pranitha, Dr. Rafia Sultana, K.Saritha Rani, Dr.B.Rajani) of Department of chemistry, GDCW(A).

- 1. A Text Book of Chemistry For B.Sc-II Year, Semester-III (CBCS) By Divya Lakshmi Publishers and Distributers with ISBN: 978-93-91576-20-2.
- 2. A Text Book of Chemistry For B.Sc-II Year, Semester-IV (CBCS) By Divya Lakshmi Publishers and Distributers with ISBN: 978-81-952384-4-6.

## **Research Publication:**

#### Dr.G.Pranitha

- 1. Quantitative Determination of Few Commercial Drugs by Using NBS and 8(6), Rhodamine-B Couple: A Spectrophotometric Study, J. Pharm. Sci. & Res. Vol. 2016, 390-394.
- 2. Spectrophotometric determination of drugs by using N-bromo succinimide and Rhodamine-b dye couple, World Journal of Pharmacy and Pharmaceutical Sciences, 2016, 5(6): 2249-2260.
- 3. A systematic investigation on the effect of Reducing Agents towards Specific Capacitance of NiMg@OH/ Reduced Graphene Oxide Nanocomposites, Materials Technology,2021.

## Dr. Rafia Sultana

- 1. Prediction of Certain Well-Characterized Domains of Known Functions within the PE and PPE Proteins of Mycobacteria. Rafiya Sultana, Karunakar Tanneeru, Ashwin B. R. Kumar, Lalitha Guruprasad\*. PLoS ONE, **2016**, 11(2): e0146786.
- **2.** Facile one pot synthesis of sulphur doped graphene for non-enzymatic sensing of hydrogen peroxide, Saritha Rani Kanuganti,Rafiya Sultana,Deepti Kolli,Gnana Kiran Maddula &Mutta Reddy Singampalli, International Journal of Environmental Analytical Chemistry, Volume, Year 2021.

## K.Saritha Rani

- 1 .Facile one pot synthesis of sulphur doped graphene for non-enzymatic sensing of hydrogen peroxide , Saritha Rani Kanuganti,Rafiya Sultana,Deepti Kolli,Gnana Kiran Maddula &Mutta Reddy Singampalli, International Journal of Environmental Analytical Chemistry, Volume , Year 2021.
- 2. Electrocatalytic oxidation of hydrazine at sulphur-doped graphene-modified glassy carbon electrode, K. Saritha Rani, Bulletin of Materials Science, 2021.
- 3. Synthesis and application for the reduction of 4- nitrophenol using palladium nanoparticles decorated graphene oxide, k. Saritha rani, Rasayan Journal of Chemistry, 2021, 0974-1496(Print) 0976-0083(Online).

## **Awards**

1. Saritha Rani Kanuganti received the Spandana Eda International Foundation award on World Teachers Day 2021, given by Guru Spandana 2021.

#### M. Prabavathi

1. Optical thermophysical and ultrasonic properties of biosynthesyzed nano(INDIUM oxide) flueids, M. Prabhavathi, Proceedings of national conference on materials for specific applications, ISBN 978-81-928677-2-4, 2018.

#### 12. STUDENT ACHIEVEMENTS:

## view document

#### 13. FUTURE PLANS:

> To plan interdisciplinary research

	>	To organize National seminar & workshops		
	>	Provide placements in academic & industrial sector		
	>	Plan to conduct classes for NET and SLET.		
14. CONTACT US: gdcwchemistrydept@gmail.com				