

The academic year 2020 - 2021 of the department started with the commencement of classes for the III and V<sup>th</sup> semester of the BSc programme on 1<sup>st</sup> June 2021 via online mode. The department officially started the I semester of the BSc programme on 1<sup>st</sup> December 2021. Offline classes started for the final year students on 4<sup>th</sup> January 2021.

This annual report will provide an overview of the department's activities during the past year, including academic achievements, research accomplishments, and outreach efforts. This year we organized several programmes. The department also engaged with the local community through various outreach efforts.

## I. MISSION AND VISION

To develop department as centre of excellence in all aspects of education.

To promote and inspire the fundamentals of chemistry through our UG Course.

## II. STUDENT STRENGTH

Programme	Year	Student Strength	Total
BSc Chemistry	I Year	44	103
	II Year	35	
	III Year	24	

## III. UNIVERSITY EXAMINATION RESULTS

Total number of students appeared for the examination	Number of students passed	percentage
41	36	87.80

## IV. DEPARTMENTAL ACTIVITIES

### I. Programmes on Environmental Sustainability

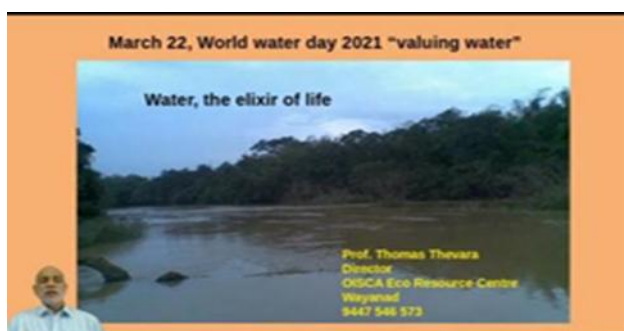
#### 1. World soil day

Conducted an online awareness session on keep soil alive and protect soil biodiversity by Dr. Thomas Thevara. The lecture was held as apart of world soil day on 5<sup>th</sup> December 2020. World soil day is held as a means to focus attention on the importance of healthy soil and advocating for the sustainable management of soil resources.



## 2. World water day

As a part of world water day environment day in collaboration with OISCA held lecture on 'valuing water' by Head of the department of chemistry Dr. Thomas Thevara on 22<sup>nd</sup> March 2021. Objective of the programme is to focusing attention on the importance of fresh water and advocating for the sustainable management of freshwater resources.



## II. Programmes on human values and professional ethics

### 1.Orientation Programme

Department of Chemistry conducted an orientation programme for first year ug students on February 2021. Orientation programme aim bridge the gap between students and faculties and also to promote students for enhancing their skills and learn about the various innovative ways to enhance their career.

### 2.Career guidance

Conducted an online session on career guidance for final year UG students by Dr. Thomas Thevara (Head of the department of chemistry). The programme was designed to help students explore their interests and passions and learn about different career options.

## V. EXTENSION ACTIVITIES

### 1. Sanitizer Making and Distribution

In April 2021, during the corona period the Department of Chemistry at WMO Arts and Science College conducted an extension activity on sanitizer making, led by Dr. Thomas Thevara. The objective of the activity was to produce high-quality sanitizer and distribute it to all other departments and offices of the institution, to promote the importance of hand hygiene and contribute to preventing the spread of diseases. The activity included a brief lecture on hand hygiene where the participants produced the sanitizer, which was tested for effectiveness and packaged in small bottles for distribution.

### FAREWELL

Department of Chemistry conducted farewell party to third year students. Students shared their experiences in their academic and campus life. They enjoyed the programme through various games and activities.



## VI. CERTIFICATE COURSE

The Department of Chemistry offers two certificate courses to cater to the growing demand for specialized knowledge in the fields of Environmental Chemistry and Detergents and Hand Sanitizer Making. These courses aim to provide participants with a comprehensive understanding of the respective subjects, equipping them with practical skills and theoretical knowledge to address environmental challenges and contribute to the production of safe and effective cleaning products. Course Coordinator was Dr. Thomas Thevara.

Sl. No	Course title	No of students
1.	Environmental Chemistry	30
2.	Detergent and hand sanitizer making	20

## VII. BRIDGE COURSE

The Department of Chemistry offers a bridge course titled Introduction to General Chemistry to provide students with a solid foundation in the fundamental concepts of chemistry. This course is designed for

students who wish to refresh their knowledge before pursuing advanced chemistry courses. The bridge course serves as a stepping stone, ensuring that all students have a common understanding of key principles before embarking on more specialized topics

Sl. No	Course title	No of students attended	Course coordinator
1	Introduction to general Chemistry	41	Sonima V

## VIII. BEST PRACTICES

- Hand Sanitizer Making and Distribution
- Proper Mentoring System
- Remedial Coaching
- Career Counselling and Special Guidance
- Quality teaching and Research
- Ethical Practices

## IX. STUDENT PROJECTS

NAME	REGISTER NUMBER	TOPIC	GUIDE
ANSILA NASRIN	WMASSCH011	<b>ORGANIC NANOPARTICLES</b>	SHAHINA PH
FATHIMA JABIN	WMASSCH012		
HASNA K	WMASSCH013		
MUHSINA K	WMASSCH014		
DEEPAK M G	WMASSCH025	<b>SYNTHESIS OF BIODIESEL FROM WASTE VEGETABLES</b>	SONIMA.V
NIDHU KRISHNA K K	WMASSCH015		
P HENNA	WMASSCH016		
AZAD K V	WMASSCH026		
AKSA MINNU DAS	WMASSCH002	<b>LITHIUM IONS:AS A POWER SOURCE</b>	THOMAS THEVARA
ABIRAM ANIL	WMASSCH020		
ABIN VARGHESE	WMATSCH021		
AJMAL FARIS	WMASSCH022		
SAJNA N	WMASSCH027		
SHAHANAS M	WMASSCH017	<b>PREPARATION OF ASPIRIN FROM ANTACID TABLETS</b>	SONIMA V
SHEBINA MA	WMASSCH018		
SHIFNA	WMASSCH019		
MUHAMMED SAJAD T K	WMASSCH001		
AJMAL M K	WMASSCH023	<b>CAFFIEN IN TEA</b>	SHAHINA PH
PRANAV N K	WMASSCH009		
UFAIRA SHERIN V K	WMASSCH007		
SANA THASNEEM A K	WMASSCH010		
NAFIYA NASLIN	WMASSCH005		

### **X. ACHIEVEMENTS OF STUDENTS**

<b>Sl. No</b>	<b>Name of students</b>	<b>Class</b>	<b>Item</b>	<b>Prize</b>
1	Rifa Salu	D3 Chemistry	Essay writing	II
2	Ajith Krishna	D3 Chemistry	Cartoon	I
3	Deena Jahan	D3 Chemistry	Story writing	II
4	Deena Jahan	D3 Chemistry	Letter writing	I
5	Deena Jahan	D3 Chemistry	Screenplay writing	I

### **XI. PUBLICATION BY FACULTY**

<b>Sl. No</b>	<b>Name of the teacher</b>	<b>Title of the chapter</b>	<b>Year of publication</b>	<b>ISBN No</b>	<b>Name of the publisher</b>
1	Shahina P H	DFT and Molecular docking studies of a set of non-steroidal anti-inflammatory drugs : Propionic acid derivatives	February 2021	9781838810832	Intechopen

### **XII. REMEDIAL COACHING**

This program was designed to provide support and assistance to academically slow learners as well as an advanced learner in order to enhance their academic performance and understanding of the subject matter. The primary objective of the remedial coaching program was to address the diverse learning needs of chemistry students and offer tailored guidance. This assessment helped in understanding the specific areas where students required remedial support or additional challenges.

### **XIII. SLOW AND ADVANCED LEARNERS PROGRAMME**

The slow and advanced learners program is a specialized educational initiative designed to cater to the diverse learning needs of students in order to maximize their academic potential. This programme recognizes the students have varying learning abilities and aims to provide tailored support to both slow learners who require additional assistance and advanced learners who need more challenging educational experiences.

**XIV. MENTORING SYSTEM**

Mentoring system is implemented by the Department of Chemistry ensures a proper mentor mentee relationship, where mentors guide and support a specific number of students, allowing for constant monitoring, counseling and assistance in both academic and economic matters. The primary objective of the mentoring system is to foster a supportive environment for students.

SI No	Name of the mentor	No of mentees
1	Dr. Thomas Thevara	35
2	Sonima V	34
3	Shahina P H	34

**XV. HYBRID MODE OF TEACHING**

The Department of Chemistry has implemented a hybrid mode of teaching, blending traditional classroom instruction with online learning platforms to provide an innovative and flexible educational experience to students. The approach aims to enhance student engagement, promote active learning and provide flexibility in accessing course materials and resources.

Sl. No	Faculty	Strategies and Techniques
1	Dr. Thomas Thevara	Youtube, PPT, Classroom
2	Sonima V	Google classroom, Google meet
3	Shahina P H	Google classroom, Teach mint, Google meet

**XVI. FEEDBACK SYSTEM**

The department of Chemistry implemented a comprehensive Feedback system that enables the students to provide valuable feedback and suggestions at the end of each semester. This system is designed to gather insights from all students regarding their learning experiences, course contents and teaching methodologie

