



RAMAIAH
College of Arts, Science &
Commerce

ಎಮ್ ಎಸ್ ರಾಮಯ್ಯ ಕಲಾ, ವಿಜ್ಞಾನ ಮತ್ತು ವಾಣಿಜ್ಯ ಕಾಲೇಜು

M S Ramaiah College of Arts, Science and Commerce

Re-accredited 'A' by NAAC, Permanently Affiliated to Bengaluru City University.

Approved by Government of Karnataka, Approved by AICTE, New Delhi,

Recognized by UGC under 2f & 12B of UGC act 1956



(National Institutional Ranking Framework, Ministry of Education, Govt of India)

Ranked 55th in NIRF India Ranking by MHRD, New Delhi

DBT Star College Scheme

MSRCASC/CHEM-BIOCHEM/2022-23/

Dated: 10/01/2023

CIRCULAR

A value-added course on the topic “Exploring the Industrially Important Compounds” will be starting for B.Sc. students from 20th January to 29th April 2023. This course will train the students in theoretical and practical aspects of industrial chemistry which will help in building a foundation for their career.

Course duration: 30 hours.

Interested students can enroll their name with Mrs. Roopashree. B. N., Mrs. Malini. M. R. and Ms. Tanisha Rathore, on or before 13/01/2023.

HEAD OF THE DEPARTMENT

Head of the Department
CHEMISTRY / BIO-CHEMISTRY
M. S. Ramaiah College of Arts,
Science & Commerce
Bangalore - 560 054

PRINCIPAL

Principal,
M.S. Ramaiah College of Arts, Science & Commerce
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About the Program

Department of Chemistry/Biochemistry is organizing a value added course for B.Sc. students who are keen in equipping themselves for Industry Jobs.

Objective

Participants will be exposed to the theoretical and practical aspects of industrial chemistry. This workshop will cover hands-on and specialized lectures on Chemical Technology, Industrial Gases, Inorganic Chemicals, Industrial important compound to acquire a meaningful picture of chemical industries.



**Ramaiah College of Arts,
Science and Commerce**

VALUE ADDED COURSE

**“Exploring the Industrially
Important Compounds”**

Outcome

This course will help students to learn and gain experience to venture into the industrial field and public sectors.

**Duration: 20th January 2023 to 29th
April 2023**

Organized by

**Department of Chemistry &
Biochemistry, MSRCASC**

Ramaiah College of Arts, Science and Commerce (RCASC)

Dr. M.S Ramaiah, a visionary and philanthropist established "Gokula Education Foundation (GEF)", in the year 1962, to deliver education and healthcare for the betterment of mankind. Under the umbrella of GEF, M.S Ramaiah college of Arts, Science and Commerce (MSRCASC) was established in the 1994. MSRCASC is Re- accredited with "A" Grade by NAAC, affiliated to Bengaluru Central University (BCU), and approved by AICTE. The college offers seven UG courses and six PG courses in Arts, Science, and Commerce, to around 2000 students.

Department of Chemistry and Biochemistry

The Department of Chemistry and Biochemistry was established in the year 1994 and currently conducts both UG and PG courses in Chemistry and Biochemistry. The syllabus is constantly supported by current day, real life applications carrying utility value. The department has very good infrastructural facilities to carry out teaching and research activities. Highly qualified faculties are assigned with theory and practical classes and are instructed to emphasize on the 'learning' of the students.

Patrons

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Sri. M R Kodandaram
Hon'ble Director, GEF

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Chief Executive, GEF

Sri. G Ramachandra
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Dr. Vatsala G.
Principal,
MSRCASC, Bengaluru

Dr. Prasanna Kumar S. G
Associate Professor,
HOD of
Chemistry/Biochemistry
MSRCASC, Bengaluru

Mrs Malini M. R
Assistant Professor
MSRCASC, Bengaluru

Mrs. Roopashree B. N
Assistant Professor
MSRCASC, Bengaluru

Ms Tanisha Rathore
Assistant Professor
MSRCASC, Bengaluru



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DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

REPORT ON VALUE-ADDED PROGRAM

Title: Exploring the Industrially Important Compounds

Duration: 40 hrs

Number of Participants: 46

Program Co-ordinators: Mrs.Malini M.R, Mrs.Roopashree B.N and Ms. Tanisha Rathore

Objective: Participants will be exposed to the theoretical and practical aspects of industrial chemistry. This program will cover hands-on and theoretical sessions on chemical Technology, Industrial Gases, Inorganic Chemicals, and Industrial important compounds to acquire the skills required for chemical industries.

The Department of Chemistry and Biochemistry has organized Value-Added Program on **Exploring the Industrially Important Compounds** for students from 20/01/2023 to 29/04/2023. The program was taught under different modules and students were introduced to the importance of industrial compounds and the practical skills which are used in the chemical industry.

The program started with Module 1: Chemical Technology by Tanisha Rathore. Herein, the students were introduced to the basic principles of distillation, solvent extraction, solid-liquid leaching and liquid-liquid extraction, absorption, and adsorption. She also explained the different types of equipment which are required in chemical technology, including reactors, distillation columns, extruders, pumps, mills, emulgator.

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Module 2: Industrial Gases and Inorganic Chemicals by Mrs. Malini. M. R. Students were taught about the large-scale production, uses, storage, and hazards in handling of the gases like oxygen, nitrogen, argon, neon, helium, hydrogen, acetylene, carbon monoxide, chlorine, fluorine, Sulphur dioxide and phosgene. She also explained the manufacture, application, analysis, and hazards in handling of the inorganic chemicals like hydrochloric acid, nitric acid, sulphuric acid, caustic soda, common salt, borax, bleaching powder, etc

Modules 3: Oils and Fats and Module 4: Dyes were taught by Mrs. Roopashree B. N. She introduced the students to oils and fats and dyes. The module dealt with the Classification, significance, and properties of oils and fats. She gave an introduction about the production of soap and also spoke about the demerits of soaps. She also mentioned the preparation and properties of detergents and the chemicals required for the production of detergent powder. Students were also introduced to the importance of surfactants, binders, and builders. She emphasized the General introduction and classification with special reference to textile and edible dyes and fabric brighteners. She also explained the industrial preparation and uses of different dyes.

Module 5 dealt with practical skills like the Manufacture of bleaching powder, synthesis of aspirin and paracetamol, Preparation of soap, and detergents, preparation of dyes. Determination of saponification value and iodine value of oil which was followed by separation techniques like Distillation, Chromatography, and Solvent extraction.

After the completion of theory and practical classes, the test was conducted to check the students' understanding levels. Based on the marks scored in the practical test, viva, and also by considering their attendance, students were assessed to clear the value-added program. An interactive session was held, where the students gave their feedback on the program. The certificates were distributed to the students.

Outcome: The participants learnt the importance of industrially important compounds and knowledge about the preparation of **Soaps, Detergents, dyes, and drugs in the industry** and their significance in day-to-day life.



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 Bengaluru, KA, India
 1st Cross Road, MSR Nagar, Bengaluru,
 560054, KA, India
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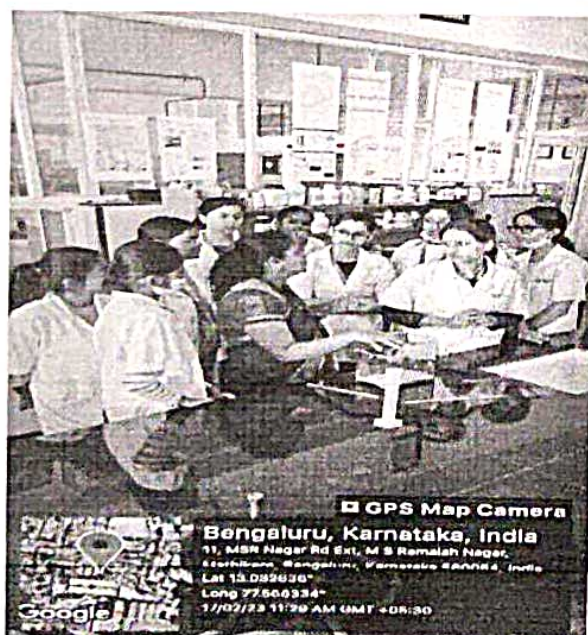
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 Mathikere, Bengaluru, Karnataka 560054, India
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 MSR 1st, 92397, M S Ramiah Nagar, Mathikere,
 Bengaluru, Karnataka 560054, India
 Lat 13.032023°
 Long 77.966428°
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*Tanish
 M.L. M.R*

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Department Of Chemistry / Biochemistry

CERTIFICATE

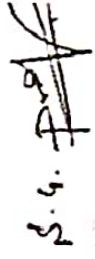
This is to certify that, **Jezreel John Johnson** (Register No. U18EV22S0122), has participated in the Value Added Program on "Exploring the Industrially Important Compounds" organized from 20/01/2023 to 29/04/2023 by the Department of Chemistry/ Biochemistry, M. S. Ramaiah College of Arts, Science and Commerce, Bengaluru.


Mrs. Malini M R

Co-ordinator
Department of Chemistry/Biochemistry


Ms. Tanisha Rathore

Co-ordinator
Department of Chemistry/Biochemistry


Dr. Prasanna Kumar SG

Head
Department of Chemistry/Biochemistry

Dr. Vatsala G

Principal,
MSRCASC