




ST JOSEPH
ENGINEERING COLLEGE
MANGALURU

AN AUTONOMOUS INSTITUTION



**CONSULTANCY
SERVICES**

**DEPARTMENT OF
CHEMISTRY**



ABOUT SJEC

St Joseph Engineering College, Mangaluru a premier institution, a hub for Creativity and Innovative Ideas in Engineering, was established in the year 2002 with an aim to educate youth in Engineering & Technology. SJEC is Affiliated to Visvesvaraya Technological University, Belagavi, in Karnataka State and recognized by All India Council for Technical Education (AICTE), New Delhi. It is located in an idyllic place at Vamanjoor, just 10 km away from Mangaluru city.

Established in 2002, the College offers top class education in Science & Technology, Business Administration and Computer Applications at UG, PG and Research levels. It has well qualified staff, state of the art laboratories and all facilities. Presently about 2500 students are studying in the College.

The College provides for a wide variety of co-curricular and extra-curricular activities which give a head-start to students, developing their personality and imparting skills of decision-making and leadership. The college holds the consistent growth in the Placements record.

ABOUT THE DEPARTMENT

The Department of Chemistry exists from the day of the inception of the College in 2002. The Chemistry Department pledges itself in the broadest and most liberal manner to encourage the advancement of all branches of engineering through its practically skilled education and service missions. The department carries out basic and applied research work through R & D Centre recognized by VTU Belagavi and offers Ph.D degree in research areas such as Crystallography, Synthetic organic chemistry, Electrochemistry, Pharmaceutical Chemistry, Analytical Chemistry etc. The Centre has been receiving research grants from various funding agencies such as DAE- BRNS, VTU and VGST.

OBJECTIVES OF SERVICE

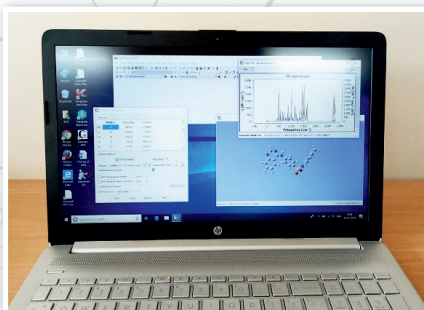
- ◆ To provide facilities to research scholars, academicians, users from R & D laboratories and industries to enable them to carry out measurements for R&D work.
- ◆ To provide guidance acquisition of data using the facilities available in the department.

CONSULTANCY SERVICES

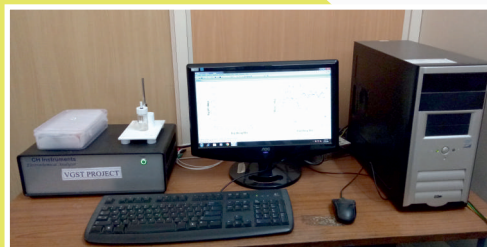
GAUSSIAN 16 SOFTWARE

- Methods for computing energies
- Exploring energy landscapes
- Studying molecular properties
- Quantum chemical calculations
- DFT studies
- HOMO-LUMO Calculations.

Charge: ₹ 500 per sample



ELECTROCHEMICAL ANALYZER/ WORKSTATION- MODEL 608E



- Chronoamperometry
 - Chronocoulometry
 - Tafel plot
 - Multi current steps
 - Potentiometric stripping analysis
 - Electrochemical noise measurement
 - Open circuit potential- time
 - Bulk electrolysis with Coulometry
- Cyclic voltametry
 - Linear Sweep voltametry
 - AC Impedance
 - Impedance–Time
 - Impedance- potential
 - Chronopotentiometry

Charge: ₹ 75 per hour

UV-VIS SPECTROPHOTOMETER

- Measurement of Time-dependent Change of Metal Nanoparticles
- Quality Control of Film and Filter
- Measuring the "Color" of Glass Plates
- Micro-Volume DNA Quantization Using TrayCell
- Trace Measurement of Chlorophyll-a - Single-Drop Measurement Using TrayCell and the Utilization of Sub-Micro Cells



Charge: ₹ 100 per sample



WATER QUALITY ANALYSIS

- Water quality, parameters such as Sulphate, Iron, Phosphate, pH, Total hardness, Chloride, Dissolved Oxygen, Residual Chlorine, Sodium, Potassium,
- Industrial wastewater analysis such as Chemical Oxygen Demand (COB), Biochemical Oxygen Demand (BOD), Dissolved Oxygen (DO)

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Affiliated to VTU, Belagavi | Recognised by AICTE, New Delhi | Accredited by NAAC with A+ Grade
B.E. - CSE, ECE, EEE, ME Accredited by NBA, New Delhi

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