# SRI G.V.G VISALAKSHI COLLEGE FOR WOMEN

**(Autonomous)**

Accredited at 'A' Grade by NAAC

An ISO Certified Institution

Udumalpet

## DEPARTMENT OF CHEMISTRY

**"Hands on Training"**

**(Supported by DBT star college Scheme)**

**Date: 10.01.2019** **Time: 9. 30 a.m.** **Venue : Chemistry Laboratory**

**Programme**

| | | |
|---|---|---|
| **Prayer Song** | : | **M. Mahalakshmi, III B.Sc., Chemistry**<br>**G. Balavani, III B.Sc., Chemistry** |
| **Welcome Address** | : | **Dr. E.Vaishnavi**<br>**Assistant Professor**<br>**Department of Chemistry.** |
| **TOPIC** | : | **"Synthesis and Characterization of Different Nanoparticles"** |
| **Resource Person** | : | **Dr. N. Vasimalai M.Sc., M.Phil., PhD**<br>**Assistant Professor (Sel.Gr),**<br>**B.S. Abdur Rahman Crescent Institute of Science & Technology (Deemed University),**<br>**Vandalur, Chennai – 600 0048,**<br>**Tamilnadu, India.** |
| **Vote of Thanks** | : | **Mrs. S. Umadevi**<br>**Assistant Professor in Chemistry.** |
| **Convener** | : | **Dr. E. Vaishnavi**<br>Assistant professor in Chemistry |
| **Organizing Committee** | : | **Mrs. M. Malarvizhi,**<br>Assistant professor in Chemistry, HOD<br>**Mrs. S. Umadevi,**<br>Assistant professor in Chemistry<br>**Mrs. R. Chitradevi**<br>Assistant professor in Chemistry<br>**Mrs. V. Anitha**<br>Assistant professor in Chemistry<br>**Dr. J. Bhuvaneswari**<br>Assistant professor in Chemistry<br>**Dr. M. Indrani**<br>Assistant professor in Chemistry |
| | | **National Anthem** |

A hands on training was conducted on 10.1.19 in the chemistry laboratory on the topic "Synthesis and characterization of Different Nanoparticles"

Resource Person :- Dr. N. Vasimalai
Assistant professor (Sel. Gr)
B.S. Abdur Rahman Crecent
Institute of Science & Technology
Vandalur, Chennai 6000048

COLLEGE SCHEME * DBT STAR

for S. Umadevi
Signature of HOD

11/1/19
(Dr. N. VASIMALAI)
Signature of the Speaker.

**Sri GVG Visalakshi College for Women (Autonoumus)**
**Department of Chemistry**
**Report for Hands on training Programme**
**Synthesis and Characterization of Different Nanoparticles**

The Department of Chemistry, Sri GVG Visalakshi College organized a one day hands on training program on 10th January 2019. The Chief Guest for this program is Dr.N.Vasimalai, Assistant professor (Sel.grd) of Chemistry from B.S. Abdur Rahman Crescent Institute of Science and Technology. The program started with a pleasant prayer song followed by welcome address by Dr. E.Vaishnavi.

The first session covered the basic of nanoscience. The guest faculty addressed on the topic entitled "Synthesis and Characterization of metal and fluorescent Nanoparticles". The lecture started around 9.30 AM and ended around 11.30 AM.

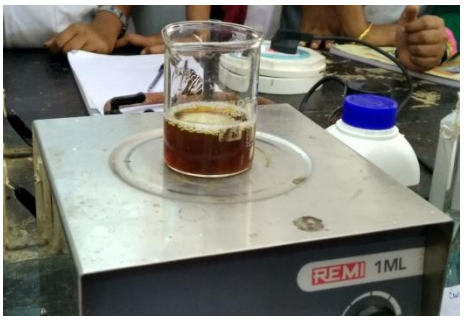

The session was made interactive by thought provoking questions posed by **Dr.N.Vasimalai** to the student audience for which convincing answers were given by the student. The lectures come to an end with vote of thanks proposed by Mrs. S.Umadevi.


III BSc., Chemistry students and six of the MSc., physics were separated into 6 batches. The second session was started by 1:30pm and this session was dedicated to the synthesis and characterisation of nanomaterials and discussion with student participants.

In this session the following nanomaterials were synthesised.

1. Chemical Synthesis of Copper nanoparticles
2. Chemical Synthesis of $MnO_2$ Nanoparticles
3. Chemical Synthesis of Gold Nanoparticles and measuring Redox potential peaks using Cyclic Voltmetric techniques.
4. Bandgap calculation of nanoparticle using UV-Visible spectroscopy.
5. Biosynthesis of Silver nanoparticles.
6. Synthesis of ZnO Nanoparticles using Sol-gel methods.

He demonstrated all the above experiments by giving a brief procedure and also initiated the students to carry out the experiments. After synthesising the nanoparticles each batch students characterised the nanoparticles using UV analysis. The absorbance spectra were recorded for copper, gold, silver, metal oxide nanoparticles. Band gap of metal oxide nanoparticles were calculated. From the results we could able to interpret the formation of nanoparticles. The absorbance peaks matches well with the literature report.


He also suggested III year students to pursue higher education and choose research as their carrier option. He concluded the session by explaining the basic concepts of spectroscopy.

The Hands on training has proven to be very inspiring and informative for the students. By the end of the day our students acquired practical experience through completing real-world, hands-on exercises and got the opportunity to synthesis nanoparticles. The student was fulfilled with the performance of the resource person and gave an excellent feedback about the one day guest lecture and hands on training programme.