

**PROFORMA FOR SUBMISSION OF PROGRESS  
REPORT BY COLLEGES SUPPORTED  
UNDER STAR COLLEGE SCHEME 2013 - 2014**

1. Name of the College : PSGR.Krishnammal College for Women
2. Name of Departments supported : Maths, Physics, Chemistry, Botany and Zoology.

Name of Coordinator, designation,

Address, phone & fax nos.,email : Dr.N.Ezhili, Associate Professor and Head, Department of Zoology,  
Ph.No. 0422 - 2572222, 4295959  
Fax.No. 2591255.

**3. List of courses (B.Sc./M.Sc./PG Diploma, certificate, etc) run by different participating departments**

Department	Courses Offered					
	UG	PG	M.Phil	Ph.D	Certificate /Diploma/ Advanced Diploma Course	Job oriented course
Physics	B.Sc. Physics	M.Sc Physics	Physics	Physics	Embedded System Design	PCB Fabrication Techniques.
Chemistry	B.Sc Chemistry	M.Sc Chemistry	Chemistry	Chemistry	Textile Chemistry	Textile Chemistry
Botany	B.Sc Plant Biology and Plant Biotechnology	M.Sc Botany	Botany	Botany	Commercial Horticulture	Commercial Tissue Culture
Zoology	B.Sc Advanced Zoology and Biotechnology	-	-	-	Pathology and Clinical Laboratory Science	Vermiculture & Mushroom Culture
Mathematics	B.Sc Mathematics	Mathematics	Mathematics	Mathematics	-	A Tool for Research – SPSS

**4. Admission in different courses in participating departments in 2011-12, 2012-13 and 2013-14 academic sessions:**

S.No.	Year	Cut off % for admission	No. of students admitted	% of result	Position in university	No. of drop out students
Physics						
1	2011-12	70	60	99.4	Autonomous & Affiliated to	02
2	2012-13	70	60	100	Bharathiar	06
3	2013-14	75	60	100	University	01
Chemistry						
1	2011-12	70	60	87	Autonomous & Affiliated to	07
2	2012-13	70	60	90	Bharathiar	02
3	2013-14	75	60	90	University	01
Botany						
1	2011-12	60	60	90	Autonomous & Affiliated to	15
2	2012-13	60	60	92	Bharathiar	04
3	2013-14	60	60	100	University	02
Zoology						
1	2011-12	60	60	81	Autonomous & Affiliated to	10
2	2012-13	60	60	76	Bharathiar	05
3	2013-14	60	60	100	University	02
Mathematics						
1	2011-12	60	60	95	Autonomous & Affiliated to	03
2	2012-13	60	60	94	Bharathiar	07
3	2013-14	60	60	95	University	-

**5. Activities carried out during the year (department wise):**

**DEPARTMENT OF PHYSICS**

**A) Student activities:**

**i. Summer School:**

- 10 students attended a training program at NVS Plasto heaters from 16.11.2013 to 30.11.2013
- 10 students attended a training program at Radio astronomy centre, Ooty from 16.11.13 to 30.11.13

**ii. Industrial visit :**

<b>S.No</b>	<b>Class</b>	<b>Place of Visit</b>	<b>Date</b>	<b>No.of Beneficiaries</b>	<b>Justification</b>
1.	III B.Sc. Physics	Thumba Trivandrum Water Purification Plant-Cochin	29.9.2013-30.9.2013	53	The visit to the space research centre at Thumba kindled the interest of students to take up research  The visit to the water purification centre enabled the students to gain practical knowledge of the applications of the principles of physics in the purification process.

**iii. List of project taken by students (purchase of chemicals, field visit, hiring charges etc):**

- Study of Ferro electric materials using Curie temperature kit (**Interdepartmental with Chemistry**)
- Measurement of resistivity using four probe method(**Interdepartmental with Chemistry**)
- Preparation and characterization of metal oxide nano particles for solar cell applications  
(**Interdepartmental with Chemistry**)
- Synthesis and characterization of photo diode material
- Determination of electronic polarisability and dielectric constant of polar and non-polar liquid (**Interdepartmental with Chemistry**)

**iv. Excursions**

30.9.13 Cochin - 53 students and 3 staff members

## B) Teachers activity:

### i.Seminars attended

- Mrs M.Lavanya presented a paper on “**Tight focusing of spirally polarized Quadratic Bessel Gaussian beam through a dielectric interface**” in the **International conference on Nanomaterials and Nanocomposites – Synthesis, properties and Applications**” organized by the Department of Physics, Mother Teresa Women’s University, Kodaikanal during 12.07.2013 to 13.07.2013
- Mrs M.Lavanya attended a “**Mission 10 x Enhancing teaching skills workshop**” held at **Dr N.G.P Arts and Science College**, Coimbatore from 06.08.2013 to 08.08.2013
- **Dr. G. Praveena** presented a paper on the topic “**Hybrid  $\alpha$ - $\gamma$  cyclic peptide – A Theoretical Study**” in the “**DFT and Beyond – Multiscale modeling of real systems**” conference held at the **International Center for Theoretical Physics, Italy** on 05.08.2013 to 16.08.2013.
- **Mrs N. Priyadharsini** attended and presented a paper “**Research in higher education technology transfer from academic institutions to Industry**” in National conference on Higher education in India Opportunities and challenges conducted at MKU University on 15.11.2013 to 16.11.2013
- **Mrs N. Priyadharsini** presented a paper on the topic “**Combustion synthesis and characterisation of  $\text{KMnPO}_4$  as electrode FOR pseudo capacitor in the II** International conference on Advanced functional materials conducted by CSIR National institute for interdisciplinary science and technology, Trivandrum on 19.2.2104 to 21.2.2014

### ii Workshop Organised:

#### Science Workshop:

The Department of Physics organized a two day “Science Workshop” on 4.12.2014 and 5.12.2014. Dr V.Veeravazhuthi, Associate Professor and Head, Department of Physics, PSG College of Arts and Science, Coimbatore gave the

inaugural address. 50 students from PSGR Krishnammal Higher Secondary School attended the workshop. The aim of the programme is to create an awareness among the school students about the basic sciences. Hands on training was given to the students in the following experiments

- Verification of Ohm's law
- Use of basic instruments like Vernier Calipers, Screw Gauge and Travelling Microscope
- Study of dispersion using spectrometer

Dr G.Umadevi, Associate Professor of Physics, Government Arts College, Coimbatore, delivered the valedictory address.

#### **.Training course attended**

- Mrs. M. Lavanya participated in the *COMSOL Conference 2013 at Bangalore* (17.10.13 -18.10.13).
- Mrs. N. Priyadharsini participated in the *COMSOL Conference 2013 at Bangalore* (17.10.13 -18.10.13).

#### **iii. Guest lectures (Please mention Name, Designation, host institute of guest faculty invited)**

1. **Mr. Vivek V Gopal**, Deputy Manager, PRICOL Ltd, Coimbatore, delivered a guest lecture on” **Production process in powder metal plant**” on 13.07.2013. **Interdepartmental with Chemistry and Botany**
2. **Dr. Sa. K.Narayan Dass**, Former Professor and Head, Department of Physics, Bharathiar University, delivered a guest lecture on “**Nobel Laureates**” on 26.07.13 **Students from Maths, Chemistry, Botany and Zoology attended the lecture**
3. **Dr. K.Nagarajan**, Head, Fuel Chemistry division, IGCAR, delivered a lecture on “**Feasibility of collaborative study at IGCAR**” on 17.08.2013. **Interdepartmental with Chemistry**

4. **Dr. K.Srinivasa Rao**, Retd. Professor, Institute of Mathematical Sciences, delivered a guest lecture on “**Developments in Modern Physics**” on 27.08.2013
5. **Dr. Haresh M Pandya**, Associate Professor of Physics, Chikkanna College of Arts and Science, Tiruppur , delivered a lecture on “**GEMS of Modern Physics**” on 30.01.2014
6. **Dr. Prafulla Kumar Behra**, Associate Professor of Physics, Indian Institute of Technology, Chennai, delivered a lecture on “**Higgs Bosons**” on 11.02.2014
7. **Dr. G.Mohan Rao**, Professor, Instrumentation and Applied Physics, Indian Institute of Science, Bangalore delivered a lecture on “**Nano technology – An Overview**” on 19.03.14. **Students from Chemistry, Botany and Zoology attended the lecture**
8. **Dr. D.Dhanalakshmi**, Associate Professor of Physics, PSG College of Technology, Coimbatore, delivered a lecture on “**Spintronics**” on 25.03.2014. **Interdepartmental with Chemistry**

#### ANNEXURE I

##### 6. **Advisory committee meeting: -**

- a) Constitution of advisory committee
- b) Advisory committee meeting conducted after implementation of scheme: If yes please give the dates and enclose the minutes

##### 7. **List of New Practicals /demonstrations introduced for UG students of each batch (I, II and III year) in different departments supported under Star College Scheme in the last one year:**

#### III Year

##### **Practicals:**

1. Op Amp Astable Multivibrator
2. Study of characteristics of photodiode(solar cell)
3. Determination of efficiency of solar cells

### **Demonstrations:**

1. Determination of resistivity for different materials by four probe method
2. Determination of Curie temperature of ferrites.

### **8. Number of students taking project vs. total number of students. Please give list of projects department-wise during the support period**

Number of students involved in projects in the year 2013-14 - 58 Vs 58 students

List of projects for the year 2013-14

- Study of Ferro electric materials using Curie temperature kit (**Interdepartmental with Chemistry**)
- Measurement of resistivity using four probe method(**Interdepartmental with Chemistry**)
- Preparation and characterization of metal oxide nano particles for solar cell applications  
**(Interdepartmental with Chemistry)**
- Synthesis and characterization of photo diode material
- Determination of electronic polarisability and dielectric constant of polar and non- polar liquid (**Interdepartmental with Chemistry**)

### **9. Interdepartmental activities conducted:**

- Faculty and Students of B.Sc. Chemistry, Botany and Zoology attended the lecture on “**Nano Technology – An Overview**” organized by the Department of Physics on 19.03.14. **Dr G.Mohan Rao**, Professor, Instrumentation and Applied Physics, Indian Institute of Science, Bangalore delivered the lecture.

### **10. Qualitative improvements due to DBT support (please highlight 5 salient lines)**

- (i) The industrial visit to Thumba , Trivandrum kindled the students’ interest in the study of space science. The visit to the water purification centre enabled the students to gain practical knowledge of the applications of the principles of Physics in the purification process.
- (ii) The project work on Preparation and characterization of metal oxide nano

particles for solar cell applications and Synthesis and characterization of photo diode material motivated the students to take up research.

- (iii) The guest lectures on various topics have enriched the knowledge of the faculty and students.
- (iv) The participation of faculty in the COMSOL workshop and the International Symposia enabled them to interact with experts in the respective fields.
- (v) Internship program helped the students to gain practical knowledge in various domains

**11. Strengths and weaknesses of each department (3 each)**

**Strength**

- 1. Well equipped laboratory
- 2. Qualified and experienced faculty
- 3. Team spirit among the faculty

**Weakness :** - Nil -

**12. Problems faced, if any, in implementation of the programme and utilization of DBT grant (in two-three lines): - Nil-**

**13. DBT grants utilization:**

**A) Non-recurring (Equipment) – Details submitted in the year 2012-13 report**

**B) Recurring Details - Amount Sanctioned 2, 00,000/-**

**Total expenses under different heads**

<b>S.No</b>	<b>Details</b>	<b>Amount in Rs.</b>
1	Visiting Faculty	20,000/-
2	Workshop	9,850/-
3	Group Project	19,749/-
4	Industrial Training	20,000/-
5	Internship Training	10,000/-
6	Chemicals and Consumables	1,20,401/-
<b>TOTAL</b>		<b>2,00,000/-</b>



## DEPARTMENT OF CHEMISTRY

### 5. Activities carried out during the year (department wise):

#### Students Activities

##### i. Hands on training

S.No	Class	Training organized	Date	Number of beneficiaries	Justification
1.	UG <b>Chemistry and Botany</b> Students of PSGR Krishnammal College for Women, CBM College, Nirmala College for Women, PSG College of Arts and Science and Government Arts College Coimbatore	<b>Hands on training –</b> Analysis of water quality parameters In collaboration with SEEDS ENVIRO LABS, Coimbatore.	13.02.2014 & 14.02.2014	100	The students gained knowledge in the operation of instruments such as flame photometer, pH meter, water quality analyzer etc. The hands on training will motivate the students to take up research projects in the field of environmental science and also to setup a water quality analysis lab.

**ii. Internship**

<b>S. No</b>	<b>Class</b>	<b>Training organized</b>	<b>Date</b>	<b>Number of beneficiaries</b>	<b>Justification</b>
<b>1.</b>	<b>III B.Sc. Chemistry</b>	<b>Organized by -</b> Water Quality Division, Centre for Water Resources Development and Management, Kozhikode, Kerala.	25.11.2013 & 29.11.2013	20	The training enabled the students to analyze the water quality parameters like pH, TDS, TS, Salinity, DO, BOD, Total coliforms and hardness. They were also given hands on training to handle sophisticated instruments like GC, GCMS, HPLC, IRMS etc. This training will help our

					students in getting job opportunities in various reputed research institutions and industries.
--	--	--	--	--	--

**ii. List of Projects taken by III BSc Chemistry students (Purchase of Chemicals, Spectral/Water Samples Analysis) (11 Groups with each 5 students)**

1. Co(II) and Ni(II) complexes of quinoxalines: Synthesis, characterization and antimicrobial studies (**Interdepartmental – with Botany and Physics**)
2. Synthesis and characterization of poly aniline and its copolymer in oxalic acid (**Interdepartmental – with Physics**)
3. Studies on toluidine Co-polymer (**Interdepartmental – with Physics**)
4. Synthesis and characterization of transition complexes (**Interdepartmental – with Botany and Physics**)
5. Risk assessment and analysis of fluoride content in food products (**Interdisciplinary**)
6. Synthesis of Cu(II) complexes (**Interdepartmental – with Botany**)
7. Inhibitive performance of Benzothiazines on corrosion of mild steel in acid media
8. Synthesis, characterization & biological activity of novel heterocyclic compounds (**Interdepartmental – with Botany**)
9. Estimation of Cu in Cu(II) complexes (**Interdepartmental – with Botany**)
10. Synthesis of some novel pyrimidinones (**Interdepartmental – with Botany**)
11. Synthesis of some nitrogen containing heterocycles (**Interdepartmental – with Botany**)

**B. Teacher's Activities**

**Teacher's activities**

**Training attended**

1. All faculty members of department of Chemistry / Botany of PSGR Krishnammal College for Women and eight faculty members from CBM College, Nirmala College for Women, PSG College of Arts and Science and Government Arts College Coimbatore attended one day training programme on “Analysis of water quality parameters” jointly organized by Department of Chemistry and Seeds Enviro Labs, Cbe on 14.02.2014.
2. Two faculty members Mrs. V.Hemapriya and Mrs. K.Kalaiselvi attended a training programme for five days (25.11.13-29.11.13) on Water Quality Monitoring Techniques at Water Quality Division, Centre for Water Resources Development and Management (CWRDM), Kozhikode, Kerala.

#### **Workshops organized:**

1. Analysis of water quality parameters in collaboration with Seeds Enviro Labs, Coimbatore.
2. Lab safety measures for non teaching staff of chemistry department.
3. Hands on training to operate instruments for laboratory staff.

#### **ii. Guest Lectures –**

- i. **Mr.Masanam Mariappan**, Senior Engineering Manager, GE-Health care, Bengaluru. delivered a guest lecture on “Applications of NMR Spectra Scan imaging”.
- ii. **Dr.R.Ramesh**, Professor of Chemistry, Bharathidasan University, Trichy, delivered a guest lecture on “Pincer Organometallic Complexes: Sensors, Switches and Catalysts”.
- iii. **Dr.K.Shanmuga Sundaram**, Senior scientific Manager, Syngene Intl. Ltd, A Bio con company, Bengaluru. delivered a guest lecture on “Stereochemistry and Drug Action”.

- iv. **Dr.K.Nagarajan**, Head, Fuel Chemistry Division, IGCAR, Kalpakkam. delivered a guest lecture on “ Feasibility of collaborative study at IGCAR”.
- v. **Dr. Dhesingh Ravi Shankaran**, Assistant Professor (S.G) in Nanotechnology, Nanotech Research Facility, PSGIAS, PSG Tech Campus, Peelamedu, Coimbatore -641004, India. delivered a guest lecture on “ Smart Nano materials”.
- vi. **Dr. Mahendran**, Senior Research Fellow, Oxford University, UK. delivered a guest lecture on “ How an antibiotic enter bacteria? Molecular basis of antibiotic translocation”.
- vii. **Dr. V. Sankar**, Professor & Head, PSG college of Pharmacy, Peelamedu, Coimbatore. delivered a guest lecture on “ Novel Drug Delivery”.
- viii. **Dr. R. Nandhakumar**, Associate Professor, Department of Chemistry, Karunya University, Karunya Nagar, Coimbatore. delivered a guest lecture on “ Bioinspired Chemical Inversion of L-amino acids to D-amino acids”.

#### **Activities for Non-teaching Staff**

#### **Training attended by Non-teaching staff:**

Seven laboratory staff attended

- i. A training on first aid and safely measures in the lab.
- ii. Hands on training in the operation of Muffle furnace, Microwave oven, Sonicator, Ultra centrifuge, Potentiometer, Conductivity meter, FT-IR and UV Spectroscopy, Gouy balance, Electrochemical work studies.

#### **6. Advisory committee meeting: ANNEXURE I**

Advisory committee meeting conducted after implementation of scheme: If yes please give the dates and enclose the minutes

- 7. **List of New Practicals/demonstrations introduced for UG students of each batch (I<sup>st</sup>, II<sup>nd</sup> and III<sup>rd</sup> year) in different departments supported under Star College Scheme in last one year:**

**II BSc Chemistry**  
**Chemistry Practical – II**

### **Spectrophotometry:**

- a. Determination of Ni as Nickel(II) dimethylglyoxime
- b. Determination of Fe as Iron(III) thiocyanate
- c. Determination of Mg by Eriochrome Black-T method
- d. Determination of Melting point / Boiling point

### **III BSc Chemistry**

#### **Chemistry Practical – III**

#### **Gravimetric Determination of the following using sintered glass crucible:**

Ni as Ni-DMG

Ba as BaCrO<sub>4</sub>

Ca as CaC<sub>2</sub>O<sub>4</sub>.H<sub>2</sub>O

Potentiometric titration: acid-base

#### **Water Quality Parameter Analysis**

Alkalinity, Hardness, Chloride, Dissolved Oxygen, Estimation of TDS, TSS, TS and pH of the given water samples

#### **8. Number of students taking project vs. total number of students. Please give list of projects department-wise during the support period. 54 Vs 54**

1. Co(II) and Ni(II) complexes of quinoxalines: Synthesis, characterization and antimicrobial studies (**Interdepartmental – with Botany and Physics** )
2. Synthesis and characterization of poly aniline and its copolymer in oxalic acid (**Interdepartmental – with Physics**)
3. Studies on toluidine Co-polymer (**Interdepartmental – with Physics**)
4. Synthesis and characterization of transition complexes (**Interdepartmental – with Botany and Physics** )
5. Risk assessment and analysis of fluoride content in food products (**Interdisciplinary**)
6. Synthesis of Cu(II) complexes (**Interdepartmental – with Botany** )
7. Inhibitive performance of Benzothiazines on corrosion of mild steel in acid media

8. Synthesis, characterization & biological activity of novel heterocyclic compounds (**Interdepartmental – with Botany** )
9. Estimation of Cu in Cu(II) complexes (**Interdepartmental – with Botany** )
10. Synthesis of some novel pyrimidinones (**Interdepartmental – with Botany** )
11. Synthesis of some nitrogen containing heterocycles (**Interdepartmental – with Botany** )

**9. Interdepartmental activities conducted:**

- i All faculty members of department of Chemistry / Botany of PSGR Krishnammal College for Women and eight faculty members from CBM College, Nirmala College for Women, PSG College of Arts and Science and Government Arts College Coimbatore attended one day training programme on “Analysis of water quality parameters” jointly organized by Department of Chemistry and Seeds Enviro Labs, Cbe on 14.02.2014.
- ii Group projects were carried out in collaboration with departments of **Botany and Physics**.

**10. Qualitative improvements due to DBT support**

1. Internship at CWRDM, Cochin enable the students to operate sophisticated instruments like GC-MS, HPLC etc.,
2. Interaction with eminent personalities through guest lectures helped the students to update their knowledge in the subject.
3. The hands on training on analysis of Water quality parameters will motivate the students to take up research projects in the field of environmental science.
4. Group projects motivated the students to take up research.

**11. Strengths and weaknesses**

**Strength –**

1. Students strength
2. Qualified faculty
3. Well equipped lab for practicals and projects

**Weakness - NIL**

**12. Problems faced, if any, in implementation of the programme and utilization of DBT grant (in two-three lines) –NIL**

**13. DBT grant utilization:**

**A) Non-recurring (Equipment) – Details submitted in the year 2012-13 report**

**B) Recurring Details – Amount Sanctioned 2,00,000/-**

**Total expenses under different heads**

<b>S.No</b>	<b>Details</b>	<b>Amount in Rs.</b>
1	Visiting Faculty	16,500/-
2	Workshop	19,925/-
3	Group Project	13,608/-
4	Internship Training	30,000/-
5	Chemicals and Consumables	1,19,979/-
<b>TOTAL</b>		<b>200,012/-</b>



## DEPARTMENT OF BOTANY

### 5. Activities carried out during the year (department wise):

#### A) Student activities:

##### i. Summer school:

S.No	Class	Internship done	No. of Beneficiaries	Justification
1.	II B.Sc. PBBT	Centre for Biosciences and Nanosciences Research, Echanari, Coimbatore Date : Nov 15-30,2012	2	Students carried out experiments on tissue culture of horticultural crops
2.	II B.Sc. PBBT	Herbo Flora Biotech, Kovaipudur, Coimbatore Date: November 09-23, 2012.	10	Plant Tissue Culture and extraction of phytochemicals

##### ii. Industrial visit for III B.Sc students

S. No.	Class	Place of Visit	Date	No. of Beneficiaries	Justification
1	III B.Sc. PBBT	Monsanto Research Centre, Bangalore	08-10-2013- 10-10-2013	45	Students learnt the seed production technology

##### iii. List of project taken by students (purchase of chemicals, field visit, hiring charges etc):

1. A study on the campus flora of PSGR Krishnammal College for Women, Coimbatore
2. Studies on phytochemical analysis, antioxidant and antimicrobial activity of *Phyllanthus emblica*, *Terminalia chebulaa* fruits and *Phyllanthus amarus* and *Centella asiatica* and *Solanum trilobatum* leaf
3. Green synthesis and characterization of silver nano particles from *Ficus carica* bark extract and its antibacterial activity
4. Antimicrobial study of liquorice roots.
5. Effect of plant extract on various infection of plants

6. Treatment of textile effluent waste water by ozonation and biotreatment technology
7. Treatment of textile effluent waste water by anolyte treatment and biotreatment technology
8. Evaluation of different tea samples for its phytochemical and antioxidant properties
9. Enumeration and identification of bacteria present in soil underlying urban waste sites in Coimbatore

#### iv. Excursions

S.No	Class	Place of Visit	Date	No. of Beneficiaries	Justification
1	III B.Sc. PBBT	Bangalore, Mysore	8-10-2013 to 10-10-2013	45	Students visited various places of scientific importance like the science museum.

#### B) Teachers activity:

##### i. **Workshop/Seminar conducted/attended**

Department of Botany organized one day training programme on “Analysis of water quality parameters” jointly with Seeds Enviro Labs, Cbe on 14.02.2014.

##### ii. **Training course attended:**

All faculty members of department of Chemistry & Botany attended one day training programme on “Analysis of water quality parameters” jointly with Seeds Enviro Labs, Cbe on 14.02.2014. **Interdepartmental: Chemistry**

#### iv. **Guest lectures (Please mention Name, Designation, host institute of guest faculty invited)**

1. **Dr. A.G.Pandurangan**, Scientist –F & Head, Plant Systematics and Evolutionary Science, Jawaharlal Nehru Tropical Botanical Garden & Research Institute, Palode, Thiruvananthapuram. Topic: Impact of climate change on the vegetation with special reference to Endemic species of western Ghats

2. **Dr. Lalitha Kabilan**, Director, Centre for Social Studies , PSGRKC, Peelamedu, Coimbatore. Topic: “Health” **Interdepartmental : Zoology, Chemistry, Physics, Maths**
  3. **A .V. Gnanasambandam**, Business Manager, Directorate of Agri- Business development, Tamil Nadu Agricultural University, Coimbatore.-641003. Topic: “Role of Biofertilisers in Agriculture.”
  4. **Dr.Sree Latha**, Research Scientist, SMART-NUS, Singapore.Topic: Cell Mechanics & Mechanobiology. **Interdepartmental : Zoology**
  5. **Dr. Viswambharan Sarasan**, Head of Conservation Biotechnology, Jodrell Laboratory, Royal Botanic Gardens, KEW, England, United Kingdom. Topic: Biodiversity Conservation Challenges and work of Kew **Interdepartmental : Zoology**
  6. **Dr.Vasudevan Nair**, Retired Professor in Botany, Victoria College, Palakkad. Topic : Importance of Ayurveda. **Interdepartmental : Chemistry**
  7. **Mr.T.S.Ramachandran**, Retired Professor, Ayya Nadar Janakiammal College of Arts and Science.Topic : Biosafety **Interdepartmental : Zoology, Chemistry**
  8. **Dr.C.Sathish Kumar, Scientist - E2**, Jawaharlal Nehru Tropical Botanic Garden and Research Insitute Thiruvananthapuram, Kerala.Topic: Biology of Carnivorous Plants. **Interdepartmental : Zoology**
6. **Advisory committee meeting: ANNEXURE I**
- a) Constitution of advisory committee
  - b) Advisory committee meeting conducted after implementation of scheme: If yes please give the dates and enclose the minutes
7. **List of New Practicals/demonstrations introduced for UG students of each batch (I, II and III year) in different departments supported under Star College Scheme in last one year:**
- III B.Sc PBBT**
- Practicals**
- a. Estimation of halides in water samples by potentiometry.
  - b. Estimation of  $\text{Co}^{2+}$  and  $\text{Ni}^{2+}$  by colorimetry/spectrophotometry.

- c. Estimation of sulphates by turbidometry.
- d. Detection of heavy metals in various samples.
- e. Sampling techniques: wastewater analysis for physico-chemical characteristics such as pH, conductivity, TDS, DO, BOD, COD, CO<sub>2</sub>, alkalinity, nutrients, chlorides, hardness, settleability of solids.
- f. Microbial degradation of textile dyes/pesticides/hydrocarbons and oils Assay of enzymes involved in biotransformation.
- g. Bioremediation Pollutant removal using microorganisms from industrial effluent. Effect of heavy metals on microbial growth and microbial leaching of metals Effect of pesticides on soil microorganism

**Demonstration:**

Preparation of MS medium, Sterilization of explant and inoculation, culture maintenance

Transgenic plants -Photographs/charts.

Demonstration of preparation of synthetic seeds.

Plasmid DNA isolation, Restriction and digestion using agarose gel electrophoresis

**8. Number of students taking project vs. total number of students. Please give list of projects department-wise during the support period. (Rs.37500/-)**

45 vs 45

List of Projects for the year 2013-14

1. A study on the campus flora of PSGR Krishnammal College for Women, Coimbatore
2. Studies on phytochemical analysis, antioxidant and antimicrobial activity of *Phyllanthus emblica*, *Terminalia chebulaa* fruits and *Phyllanthus amarus* and *Centella asiatica* and *Solanum trilobatum* leaf **Interdisciplinary : Chemistry**

3. Green synthesis and characterization of silver nano particles from *Ficus carica* bark extract and its antibacterial activity
4. Antimicrobial study of liquorice roots.
5. Effect of plant extract on various infection of plants
6. Treatment of textile effluent waste water by ozonation and biotreatment technology. **Interdisciplinary : Chemistry**
7. Treatment of textile effluent waste water by anolyte treatment and biotreatment technology. **Interdisciplinary : Chemistry**
8. Evaluation of different tea samples for its phytochemical and antioxidant properties. **Interdisciplinary : Chemistry**
9. Enumeration and identification of bacteria present in soil underlying urban waste sites in Coimbatore.

9. **Interdepartmental activities conducted:**

80 UG Botany students of PSGR Krishnammal College for Women and neighbouring Colleges (Nirmala College for Women, PSG College of Arts and Science and Government Arts College, Coimbatore) attended one day training programme on “Analysis of water quality parameters” jointly organized by Department of Botany and Seeds Enviro Labs, Cbe on 15.02.2014. **Intercollegiate – Students from Botany, Zoology and Microbiology of other colleges participated in the training.**

10. **Qualitative improvements due to DBT support (please highlight 5 salient lines)**

1. Students were able to visit various industries which are actively involved in research.
2. Students were able to do the practical individually which were conducted in groups so far.
3. Innovative projects and internship training were carried out by the students.
4. Expertise from different fields was invited to give special lectures at micro and macro level.
5. The staff members were able to attend more number of seminars and workshops.
6. Students get motivated to pursue higher studies in Botany

**11. Strengths and weaknesses of each department (3 each)**

**Strength:**

1. All the faculty members are doctorates and are actively involved in research.
2. Department has one major projects under progress and completed four projects.
3. The department is well equipped with instruments useful for advanced areas of research including molecular biology.

**Weakness: nil**

**12. Problems faced, if any, in implementation of the programme and utilization of DBT grant (in two-three lines)**

Nil

**13. DBT grant utilization:**

**A) Non-recurring (Equipment) – Details submitted in the year 2012-13 report**

**B) Recurring Details – Amount Sanctioned 2, 00,000/-**

**Total expenses under different heads**

<b>S.No</b>	<b>Particulars</b>	<b>Expenditure in Rs.</b>
1	Guest lecture	19,646
2	Workshop	9,968
3	Group project and internship	37,500
4	Industrial training	12,709
5	Chemicals / Consumables	1,20,999
	<b>Total</b>	<b>2,00,822</b>

## DEPARTMENT OF ZOOLOGY

5. Activities carried out during the year (department wise):

### A) Student activities:

i. Summer school:

1. Training in First Aid to pet animals in Pet clinic in Peelamedu, Coimbatore
2. Training in Maintenance of pet animals in Pet clinic in Peelamedu, Coimbatore
3. Medical laboratory techniques in clinical labs attached to hospitals in Coimbatore

ii. Industrial visit

S.No	Class	Place of Visit	Date	No.of Beneficiaries	Justification
1.	III B.Sc. Zoology	Centre for Advanced Studies in Marine Biology, Museum - Annamalai University, Chidambaram, Mangrove Forest- Pitchavaram	03.10.13-05.10.13	40	Gained knowledge about culture techniques, mangrove ecosystems and ENVIS library.

iii. List of project taken by students (purchase of chemicals, field visit, hiring charges etc):

1. Comparative Analysis of Protein content of Tilapia Fish by feeding artificial fish feed and Spirulina (**Interdepartmental – with Chemistry**)
2. A Novel method to enhance the biodegradation of coir pith (**Interdepartmental – with Chemistry**)
3. Studies on the feeding preferences and host plant Selection of Monarch Butterfly, *Danaus plexippus* (**Interdepartmental – with Botany**)
4. A Comparative Study on the rates of degradation and the relative nutrient contents of liquid biofertilizers produced from selected substrates (**Interdepartmental – with Botany**)
5. Laboratory evaluation and comparative study of Herbal mosquito repellent against filarial mosquito vector, *Culex quinquefasciatus* (**Interdepartmental – with Botany**)

#### iv. Excursions

55 Students of II BSC Advanced Zoology and Biotechnology visited Selvaraj Vermiculture Farm in Udumalpet on 03.03.2014

#### **B) Teachers activity:**

##### **Workshop/Seminar conducted/attended**

##### **i Workshop Organised**

##### **1. Kitchen Gardening:**

Department of Zoology organized a one day workshop on the topic Kitchen Gardening to the faculty and students of our college on 26.07.2013. Hands on training was given by **Mr. Vincent, Secretary, Herbal and Tree Growers Association, Coimbatore District**. In light of the space constraints in urban areas and the increased incidence of pesticides and chemicals in fruits and vegetables, Kitchen Gardening is emerging as a viable option to produce fresh fruits, vegetables and herbs. The aim of the Workshop is to equip themselves to grow plants at home. The Workshop covered various techniques and hands-on training, required for growing plants at home using plant bags, composting and effective management of kitchen waste. The workshop provided hands-on information and showed participants how to grow their favorite vegetables like tomatoes, capsicum, spinach, radish, Fenu Greek and chilies in balconies, verandahs, terraces, backyards and society premises and small garden spaces.

##### **2. Instrumentation Training:**

Hands on training to students of II and III year BSC Advanced Zoology and Biotechnology, Faculty and Lab Assistants on various instruments in our laboratory to understand the principles and emphasis on useful practical skills, A 'hands-on' approach helped the students to be competent enough to handle the instruments individually.

- i. Spectrophotometer, pH meter training by **T. Samuel, ELICO** on 19.07.13
- ii. Electrophoresis by **Arun John, MERCK Biosciences** on 29.07.13



- iii. Electronic Balance, pH Meter, Hot Air Oven, Incubator by **S. Karthikeyan, Precision Scientific Company** on 07.08.13
- iv. Clinical Spectrophotometer by **J. Prabu, Diagnostic Services, CPC Diagnostics** on 07.03.14

## **ii. Workshop attended**

1. Dr. P. B. Harathi attended one day workshop on National Level Workshop - Antioxidants and Human Health at Sri GVG Visalakshi College for Women, Udumalpet on 04.03.14

## **iii. Training course attended**

1. Dr. Sasikala G attended one day training programme on “Analysis of water quality parameters” jointly organized by Department of Chemistry and Seeds Enviro Labs, Cbe on 14.02.2014

## **iv. Guest lectures (Please mention Name, Designation, host institute of guest faculty invited)**

1. **B. A. Daniel, Ph.D.**, Senior Scientist (Entomology), Chair, South Asian Invertebrate Specialist Group IUCN SSCEducation Coordinator, ZEN, *Zoo Outreach Organization*, 96 Kumutham Nagar, Villankurichi Road, Coimbatore 641035 TN, India delivered a guest lecture on “Biodiversity and Me” on 9.07.2013
2. **Mr. Mani**, Managing Director, Microbiological Laboratory, RS Puram, Coimbatore delivered a guest lecture on “Clinical Lab Techniques” on 15.07.2013
3. **Dr. P. Mohan, Consultant Cardiologist** delivered a guest lecture on “Anatomy and Physiology of Heart” on 21.08.13
4. **Dr. K. Mahadevan**, Reader in Sexually transmitted disease, Coimbatore Medical College, Coimbatore delivered a guest lecture on “Skin Care Management – How to look beautiful” on 31.12.13
5. **Dr. P. Mullainadhan**, Professor, Department of Zoology, School of Life Sciences, University of Madras, Guindy campus Chennai delivered a guest lecture on “Vaccinology” on 05.02.14

6. **Dr. C.M. Vimala, Associate Professor**, Department of Zoology, Mount Carmel College, Bangalore delivered a guest lecture on “Cell Signaling and Apoptosis” on 15.02.14

6. **Advisory committee meeting: ANNEXURE I**

a) Constitution of advisory committee

b) Advisory committee meeting conducted after implementation of scheme: If yes please give the dates and enclose the minutes

7. List of New Practicals/demonstrations introduced for UG students of each batch (I<sup>st</sup>, II<sup>nd</sup> and III<sup>rd</sup> year) in different departments supported under Star College Scheme in last one year:

**I Year**

Field observations combined with photography and/or videography

- 1) Study of live water specimens in nearby water bodies
- 2) Study of insect fauna.

**Culture Methods**

- 1) Culture of unicellular organisms (Amoeba, Paramecium, and Euglena)
- 2) Culture of multicellular organisms (Earthworm)

**III Year**

1. Isolation and estimation of DNA & RNA.
2. Blotting techniques- observation and photographs.
3. Techniques of sterilization dry and wet.
4. Preparation of nutrient agar & broth media.
5. Distribution of microbes in soil, air and water.

**8. Number of students taking project vs. total number of students. Please give list of projects department-wise during the support period.**

40 Vs 40

1. Comparative Analysis of Protein content of Tilapia Fish by feeding artificial fish feed and Spirulina (**Interdepartmental – with Chemistry**)
2. A Novel method to enhance the biodegradation of coir pith (**Interdepartmental – with Chemistry**)
3. Studies on the feeding preferences and host plant Selection of Monarch Butterfly, *Danaus plexippus* (**Interdepartmental – with Botany**)
4. A Comparative Study on the rates of degradation and the relative nutrient contents of liquid biofertilizers produced from selected substrates (**Interdepartmental – with Botany**)
5. Laboratory evaluation and comparative study of Herbal mosquito repellent against filarial mosquito vector, *Culex quinquefasciatus* (**Interdepartmental – with Botany**)

**9. Interdepartmental activities conducted:**

- Department of Zoology organized a one day workshop on the topic Kitchen Gardening to the faculty and students of our college on 26.07.2013. Hands on training was given by **Mr. Vincent, Secretary, Herbal and Tree Growers Association, Coimbatore District.**
- **Dr. K. Mahadevan**, Reader in Sexually transmitted disease, Coimbatore Medical College, Coimbatore delivered a guest lecture on “Skin Care Management – How to look beautiful” on 31.12.13
- **B. A. Daniel, Ph.D.**, Senior Scientist (Entomology), Chair, South Asian Invertebrate Specialist Group IUCN SSCEducation Coordinator, ZEN, **Zoo Outreach Organization**, 96 Kumutham Nagar, Villankurichi Road, Coimbatore 641035 TN, India delivered a guest lecture on “Biodiversity and Me” on 9.07.2013

- Hands on training to students of II and III year BSC Advanced Zoology and Biotechnology, Faculty and Lab Assistants on various instruments in our laboratory to understand the principles and emphasis on useful practical skills

**10. Qualitative improvements due to DBT support (please highlight 5 salient lines)**

1. Students were able to do the practical individually which were conducted in groups so far.
2. Innovative projects and internship training were carried out by the students.
3. Expertise from different fields was invited to give special lectures at micro and macro level.
4. Fund extended by DBT motivated the staff members to attend more number of seminars and workshops.
5. Setting up a basic instrumentation laboratory for the Undergraduate students in the zoology laboratory.

**11. Strengths and weaknesses of each department (3 each)**

**Strength:**

- All the five faculty members are indulged in research
- Two Major projects and two minor projects ongoing
- Two patent and copyrights are registered

**Weakness:**

- Recognition for post graduation and research programme are under process.

**12. Problems faced, if any, in implementation of the programme and utilization of DBT grant (in two-three lines)**

NIL

**13. DBT grant utilization:**

**A) Non-recurring (Equipment) – Details submitted in the year 2012-13 report**

**B) Recurring Details – Amount Sanctioned 2, 00,000/-**

**Total expenses under different heads**

<b>S.No</b>	<b>Details</b>	<b>Amount in Rs.</b>
1	Visiting Faculty	5,052/-
2	Workshop	11,750/-
3	Group Project	12,718/-
4	Internship Training	22,200/-
5	Chemicals and Consumables	1,17,900/-
6.	Travel	10,491/-
<b>TOTAL</b>		<b>2,00,111/-</b>

## DEPARTMENT OF MATHEMATICS

5. Activities carried out during the year (department wise):

### A) Student activities

#### i. Summer School:

30 Students of II B.Sc.Mathematics along with two faculty members

Dr. B. Tamilselvi and Mrs.S. Deepa underwent an internship for one day on 16.03.14 on “Matlab” at PSG College of Technology, Coimbatore.

#### ii. Industrial Visits:

47 Students of III B.Sc Mathematics along with two faculty members underwent an industrial visit for 5 days on 3.10.2013 – 7.10.2013 on Chennai and Pondicherry.

(Interdepartmental with Physics,Chemistry,Botany & Zoology)

#### iii. List of Projects Undertaken by Students

- A Study of Number Theory on Cryptography( Interdepartmental with Physics,Chemistry,Botany & Zoology)
- Basics of Number Theory and its applications (Interdepartmental with Zoology)
- A Study on Energy of Certain Graphs using Matlab (Interdepartmental with Chemistry)
- A Study on Markov Chain in Stochastic Process (Interdepartmental with Chemistry)
- A Study on Measles by Mathematical Modelling (Interdepartmental with botany)
- A Study on Laplacian Graph (Interdepartmental with Physics)

#### iv. Excursions: NA

### B) Teachers' activities

#### ii. Workshops, Seminars Conducted /Attended

Dr.B.Tamilselvi, Associate Professor and S.Deepa, Assistant Professor attended a workshop on“MATLAB” on 16.03.14.

## ii .Training Courses Conducted /Attended

60 UG students of department of Mathematics of PSGR Krishnammal College for Women attended two days training programme on “SPSS” on 20.03.14 and 21.03.14 and the resource person was Dr. G. Uma, Assistant professor, Department of Statistics,

PSG College of Arts and Science, Coimbatore.

## iii. Guest Lectures (Please mention Name, Designation, Host Institute of the Guest Faculty)

1. **Dr.(Mrs) Paarvathi, MSc., M. Ohil., Ph.D., PGDCA.,** Associate Professor and Head, Vellalar College, Erode delivered a guest lecture on “Fuzzy sets and its Applications” on 01.07.13. (Interdepartmental with Physics & Chemistry)
2. **Dr.R.Arumuganathan,** Professor and Head, Department of Mathematics, PSG College of Technology, Coimbatore. delivered a guest lecture on “Get ready for Analytical Thinking” on 30.07.13. ( Interdepartmental with Physics)
3. **Mrs. S. Bagyalakshmi,** Associate Professor, Department of Mathematics, PSG College of Arts and Science delivered a guest lecture on” Applications of Operations Research” on 29.08.14.( Interdepartmental with Physics & Chemistry)
4. **Dr.S.Valarmathi,** Associate Professor and Head, Bishop Heber College, Trichy. delivered a guest lecture on “Boundary layers- Theory and Applications” on 09.12.13. (Interdepartmental with Physics & Chemistry)
5. **Dr.(Mrs).K.Indirani,** Associate professor, Department of Mathematics, Nirmalacollege for Women, Coimbatore delivered a guest lecture on “Lateral Thinking in Mathematics” on 04.01.14.( ( Interdepartmental with Physics ,Chemistry,Botany, Zoology)
6. **Miva Yamaguchi, Dietician,Ph.D,** Project research assistant professor, university of Jokushima Graduate school, Japan delivered a guest lecture on “Nutrition and Dietics” on 06.01.14.( ( Interdepartmental with physics ,Chemistry,Botany,Zoology)
7. **Dr.P.Kandasamy, Ph.D, Profesor,** Department of mathematics, Amirta Institution, Coimbatore delivered a guest lecture on “Innovative of Mathematics” on 07.02.14. (Interdepartmental with Physics)

8. **Dr.R.S.Lekshmi**, Associate Professor, Department of Applied Mathematics and computational science, PSG College of Technology, Coimbatore delivered a guest lecture on “Graph Theory- Models in Dots and Lines” on 17.02.14.  
(Interdepartmental with Physics & Chemistry)

**6. Advisory Committee Meeting:**

A) Constitution of Advisory Committee:

B) Advisory Committee Meetings Conducted after Implementation of the Scheme

If meeting held, please give the date/s and enclose the minutes.

**7. List of New Practicals/Demonstrations introduced for UG Students for each class (I<sup>st</sup>, II<sup>nd</sup> and III<sup>rd</sup> year) in Different Departments supported under Star College Scheme in last one year:**

Computer programming – C Practicals.

**8. Number of Students taking Project vs. Total Number of Students. Please give list of projects (department-wise) during the support period.**

- A Study of Number Theory on Cryptography( Interdepartmental with Physics, Chemistry, Botany & Zoology)
- Basics of Number Theory and its applications (Interdepartmental with Zoology)
- A Study on Energy of Certain Graphs using Matlab (Interdepartmental with Chemistry)
- A Study on Markov Chain in Stochastic Process (Interdepartmental with Chemistry)
- A Study on Measles by Mathematical Modelling (Interdepartmental with botany)
- A Study on Laplacian Graph (Interdepartmental with Physics)

**9. Inter-departmental Activities Conducted:**

53 UG students of department of Mathematics and 6 UG students of Department of Chemistry of PSGR Krishnammal College for Women along with 6 UG students of Department of Mathematics of PSG College of Arts and Science, Coimbatore attended two days training programme on “LATEX” on 29.01.14 and 30.01.14. The resource person was Dr. M. Paramasivam, Assistant Professor, Bishop Heber College,



Thiruchirapalli.

#### **10. Qualitative Improvements due to DBT Support (please highlight 5 salient points)**

- Research is going on in fields like Social Sciences, Medicine, etc. Those people need data analysis correlation coefficient or finding mathematics equations and getting values.
- In this aspect the need of mathematicians and statisticians became essential after attending the training in SPSS AND MATLAB the students are able to help the researches.
- LaTeX is a document preparation system and document markup language. It is widely used for the communication and publication of scientific documents in many fields, including mathematics, physics, computer science, statistics, economics, and political science.
- SPSS is a software package used for conducting statistical analysis, manipulating data, and generating table and graphs that summarize data. SPSS performs statistical analysis range from basic descriptive statistics, such as average and prevalence, to advanced inferential statistical, such as regression model, analysis of variance (ANOVA), factor analysis, etc.
- Matlab is a software package for high performance numerical computation and visualization. It provides an interactive environment with hundreds of built-in functions for technical computation, graphics and animation. There are numerous functions for 2-D and 3-D graphics, as well as for animation. Students trained in Matlab get better visualisation of their project and research works.

#### **11. Strengths and Weaknesses of each Department (3 each)**

- **Strengths :**
- Faculty can often assign more complex, authentic problems to groups of students than they could to individuals. Group work also introduces more unpredictability in teaching, since groups may approach tasks and solve problems in novel, interesting ways.
- Guest Lecture is a way of enriching our students with the latest updates of the Industries and Technicalities. The Students are bestowed with knowledge about Industry needs, latest technical updates, Avenues for Higher studies etc.
- Eminent personalities from various Industries and Institutions to lend valuable Information from their Experiences to our students. A guest speaker conveys current,

realistic information and a perspective on a subject that is not available from textbooks.

- **Weakness :** Nil

**12. Problems Faced, if any, in implementation of the Program and Utilization of DBT Grant (in two-three lines):** Nil

**13. DBT grant utilization:**

**A) Non-recurring (Equipment) – Details submitted in the year 2012-13 report**

**B) Recurring Details – Amount Sanctioned 2, 00,000/-**

**Total expenditure under different heads:**

<b>S.No</b>	<b>Details</b>	<b>Amount in Rs</b>
1	Visiting Faculty	17,200
2	Workshop	24,788
3	Student project	17,955
4	Internship	17,090
5	Faculty training program	3000
6	Chemicals & Consumables	1,20,025
	<b>Total</b>	<b>2,00,058/-</b>

## Annexure I

### A. THE REVISED COMPOSITION OF ADVISORY COMMITTEE

- (i) **Chairman** : **Dr. Mrs. N. Yesodha Devi, M.Com.,Ph.D.**  
Principal, P.S.G.R. Krishnammal College for Women,  
Peelamedu, Coimbatore – 641 004  
Ph. (Off) +91 422 4295959, Mobile: 91-9994283962  
E-mail: [principal@psgrkc.com](mailto:principal@psgrkc.com)
- Advisor** : **Dr. Suman Govil**  
Advisor,HRD Division  
Department of Biotechnology  
(Ministry of Science & Technology)  
Block – 2, CGO Complex,Lodi Road  
New Delhi – 110 003  
E-mail:[suman@dbt.nic.in](mailto:suman@dbt.nic.in)

#### Members

##### External Experts (2)

#### **Dr.D.Mangalaraj M.Sc., Ph.D**

Professor and Head, Department of Nanoscience and Technology,  
Bharathiar University, Coimbatore - 641 046, Tamil Nadu, India Phone:  
(Off) 0422-2428421, 2425 458, Mobile: +91- 9894762141,  
E-mail: [mangalaraj@buc.edu.in](mailto:mangalaraj@buc.edu.in)

#### **Dr. R Rajendran M.Sc., PGDEM.,MBA.,Ph.D**

Principal, PSG College of Arts & Science  
Civil Aerodrome (post), Coimbatore – 641 014, Tamil Nadu, India  
Phone: (Off) 0422-4397901 to 905, Mobile: +91- 9443751400  
E-mail: [rrajendranmicro@yahoo.co.in](mailto:rrajendranmicro@yahoo.co.in)

#### **Overall Coordinator, Member-Secretary**

#### **Dr. (Mrs) N.Ezhili M.Sc.,MPhil.,B.Ed.,Ph.D**

Head, Department of Zoology, P.S.G.R Krishnammal College for Women,  
Phone: (Off) 0422-4397901 to 905, Mobile: +91-9443751400

#### **Heads of Science Departments**

1. Dr. (Mrs)P.Meena,M.Sc.,M.Phil.,Ph.D. – Associate Professor
2. Dr.(Mrs)K. Parameswari,M.Sc.,M.Phil.,Ph.D, -

- Associate Professor
3. Dr. (Mrs)V.Sashi, M.Sc.,M.Phil.,Ph.D, - Associate Professor
  4. Dr. (Mrs) N.Ezhili M.Sc.,MPhil.,B.Ed.,Ph.D - Associate Professor
  5. Dr. (Mrs)B. Tamilselvi M.Sc.,M.Phil.,Ph.D. - Associate Professor

#### **Coordinators (from all Participating departments)**

1. **Mrs.M.Lavanya**, M.Sc., M.Phil. – Assistant Professor  
Department of Physics
2. **Dr. (Mrs.)Subramanian Chitra** M.Sc., M.Phil., Ph.D. – Associate Professor  
Department of Chemistry.
3. **Dr. (Mrs.)K.S.Tamilselvi**, M.Sc., M.Phil., Ph.D. -Assistant Professor,  
Department of Botany.
4. **Dr. (Mrs.)P.B.Harathi**, M.Sc.,M.Phil.,Ph.D. – Assistant Professor
5. **Mrs. S. Deepa** M.Sc., M.Phil.,– Assistant Professor,  
Department of Mathematics

#### **(iv) Faculty Members (from all Participating departments)**

##### **Department of Physics**

1. Dr.(Mrs.)P.Meena, M.Sc., M.Phil., Ph.D. - Associate Professor &H.O.D.
2. Mrs.J.Balavijayalakshmi, M.Sc.,M.Phil., MCA., M.Phil. - Assistant Professor.
3. Mrs.M. Lavanya, M.Sc., M.Phil. - Assistant Professor.
4. Mrs.N.Priyadharsini, M.Sc., M.Phil. - Assistant Professor.
5. Ms.A.Ishwarya, M.Sc., M.Phil. - Assistant Professor.
6. Ms.S.Yuvarani, M.Sc., M.Phil. - Assistant Professor.
7. Dr. (Mrs.) PraveenaGopalan, M.Sc.,M.Phil. - Assistant Professor
8. Ms. S.Subanya, M.Sc.,M.Phil. - Assistant Professor.
9. Ms.N.Maheshwari, M.Sc.,M.Phil. - Assistant Professor.
10. Ms.S.Gokila, M.Sc.,M.Phil - Assistant Professor.
11. Dr. K. Maheswari M.Sc, M.Phil., Ph.D. - Assistant Professor.
12. Mrs.M. Vannamalar M.Sc., M.Phil., - Assistant Professor.
13. Ms. T. Poongodi M.Sc., M.Phil., - Assistant Professor.

##### **Department of Chemistry**

1. Dr.(Mrs.)K.Parameswari, M.Sc., M.Phil., Ph.D. - Associate Professor &H.O.D
2. Dr.(Mrs.)Subramanian Chitra, M.Sc., M.Phil., Ph.D. - Associate Professor
3. Dr.(Mrs.)D.Nalini, M.Sc., M.Phil.,B.Ed.,M.C.A., Ph.D. - Assistant Professor
4. Mrs.P.Kanchana, M.Sc.,M.Phil. - Assistant Professor
5. Miss.E.Kayalvizhy, M.Sc.,M.Phil. - Assistant Professor
6. Dr.(Mrs.)N.MuthulakshmiAndal, M.sc., Ph.D. - Assistant Professor
7. Dr.(Mrs.)G.Selvi, M.Sc., M.Phil., Ph.D. - Assistant Professor
8. Mrs.V.HemaPriya, M.Sc., M.Phil. - Assistant Professor

9. Mrs.N.Shyamaladevi, M.Sc., M.Phil. - Assistant Professor
10. Ms.R.Kayalvizihi, M.Sc., M.Phil. – Assistant Professor
11. Mrs.K.Kalaiselvi, M.Sc., M.Phil. - Assistant Professor
12. Mrs.G.Sathyapriyadarshini, M.Sc., M.Phil. - Assistant Professor
13. Dr. P. Amutha M.Sc., M.Phil., Ph.D. - Assistant Professor
14. Mrs. M. Therasa Rani M.Sc., M.Phil.,- Assistant Professor
15. Mrs. N. Guna Sundarai M.Sc., M.Phil.,- Assistant Professor

### **Department of Zoology**

1. Dr. (Mrs.)N.Ezhili, M.Sc., M.Phil.,B.Ed., Ph.D. -Assistant Professor &H.O.D.
2. Dr.(Mrs.)P.B.Harathi, M.Sc., M.Phil., Ph.D. - Assistant Professor
3. Mrs.P.Susheela, M.Sc., M.Phil. - Assistant Professor
4. Dr.G. Sasikala, M.Sc., M.Phil., Ph.D. - Assistant Professor
5. Dr.R.Radha, M.Sc., M.Phil., B.Ed., Ph.D. - Assistant Professor

### **Department of Botany**

1. Dr. (Mrs.)V.Sashi, M.Sc., M.Phil., Ph.D. -Associate Professor &H.O.D.
2. Dr. (Mrs)R.S.Meeraabai, M.Sc., M.Phil.,B.Ed.,PGDCA. Ph.D. - Associate professor
3. Dr.(Mrs.)S.N.Padmadevi, M.Sc., M.Phil.,B.Ed., Ph.D. - Associate Professor
4. Dr.(Mrs.)C.Krishnaveni, M.Sc., M.Phil.,B.Ed., Ph.D. - Associate Professor
5. Dr.(Ms.)M.Kamalam, M.Sc., M.Phil., Ph.D. - Assistant Professor
6. Dr.(Mrs.)S.Poornima, M.Sc., M.Phil., Ph.D. - Assistant Professor
7. Dr.(Mrs.)K.Gajalakshmi, M.Sc., M.Phil., Ph.D. - Assistant Professor
8. Dr.(Mrs.)K.S.Tamilselvi, M.Sc., M.Phil., Ph.D. - Assistant Professor
9. Dr. (Mrs.)M.Kanchana, M.Sc., M.Phil., Ph.D.,PGDBI. - Assistant Professor
10. Dr.(Mrs.)S.Vinodhini, M.Sc., M.Phil., Ph.D. -Assistant Professor
11. Dr.(Mrs.)W.Suganya, M.Sc., M.Phil., Ph.D. -Assistant Professor
12. Dr.(Mrs.)R.Sumathi, M.Sc., M.Phil., Ph.D.,B.Ed. -Assistant Professor

### **Department of Mathematics**

1. Dr. (Mrs.)S.Chitra, M.Sc., M.Phil. — Associate Professor &H.O.D.
2. Dr.(Mrs.)B.Tamilselvi, M.Sc., M.Phil., Ph.D. — Associate Professor
3. Miss.A.Karpagam, M.Sc.,D.C.P. — Associate Professor
4. Dr. (Mrs.)K.Sumathi, M.Sc., M.Phil., Ph.D., PGDCA. — Associate Professor
5. Mrs.S.Deepa, M.Sc., M.Phil. -Assistant Professor

Signature of the Co-ordinator

Signature of the Principal