### CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

### 3.1 Promotion of Research

### 3.1.1 Does the college have a research committee to monitor and address the issues of research?

Yes, the college has a Research Cell to monitor and address the issues of research. The committee comprises the Dean, Research Coordinator, Research Associate and faculty representatives from each department. The Research Advisory Committee comprising of scientists from universities and national level institutions and industries provide guidance to promote Basic and Applied Science research with relevance to the societal needs.

### **Activities of the Research Committee:**

The committee meets periodically and discusses the research avenues of the various disciplines

- Identifies various funding agencies for the submission of project proposals
- Encourages and identifies faculty and students to attend seminars/ workshops, both at national and international levels, pertaining to their discipline
- Recommends the purchase of advanced level instruments to improve infrastructure facilities
- Sets a time frame for faculty to complete their Ph.D
- ♦ Motivates the staff and students to publish their research findings in reputed national and international journals.

### Outcome

- i. Increase in the number of faculty with Ph.D
- ii. Increase in the number of research guides
- iii. Increase in the number of major/minor projects funded by UGC, DST, DRDO, ICSSRetc
- iv. Increase in the number of publications
- v. Increase in the intake of scholars for research programmes
- vi. Increase in the number of M. Phils and Ph.D holders
- vii. Publication of research journals.

### 3.1.2 What is the policy of the College to promote research culture in the College?

- ♦ To provide necessary infrastructure.
- MoU signed with reputed research institutes to promote research at international standards.
- ◆ Partial financial support to faculty and research students for attending conferences abroad and publications in standard journals and patenting.
- Awards for outstanding research contributions.
- Time bound programme for faculty to qualify with a doctorate degree.

## 3.1.3 List details of prioritized research areas and the areas of expertise available with the college

| S. No. | Department                  | Area of expertise   |
|--------|-----------------------------|---|
| 1.     | English                     | Fiction ,Poetry and Drama   |
| 2.     | Economics                   | Development Economics, Environmental Economics.   |
| 3.     | History                     | Ancient India, Medieval India, Modern India   |
| 4.     | Mathematics                 | Fluid Dynamics, Stochatic Process, Graph Theory, Functional Analysis  |
| 5.     | Chemistry                   | Synthetic Organic Chemistry, Organo Metallic Chemistry,<br>Corrosion Science, Solid State Chemistry, Environmental Chemistry  |
| 6.     | Physics                     | Thin Film Technology, Solid State Physics Ultra Sonics, Nano Science, Nuclear Physics, Quantum Mechanics  |
| 7.     | Botany                      | Microbiology , Enzymology, Molecular Biology, Biofuel, Bio fertilizer, Bio fibers, Food Technology, Nanotechnology, Cytogenetics, Pharmacognosy, Forest Botany & Tissue Culture |
| 8.     | Zoology                     | Environmental Biology, GIS, Entomology, Aquatic Toxicology  |
| 9.     | Commerce                    | Finance, Marketing, Banking ,Human Resource Management  |
| 10.    | Business Management (Aided) | Finance, Marketing, Human Resource Management   |
| 11.    | Computer Science            | Data Mining, Digital Image Processing   |
| 12.    | MBA                         | Emotional Intelligence, Security Analysis & Portfolio Management,<br>Services Marketing & Consumer Behavior   |
| 13.    | MCA                         | Data Mining, Biometric Security, Image Processing.  |

## 3.1.4 What are the proactive mechanisms adopted by the college to facilitate smooth implementation of research schemes/project?

Advancing funds for sanctioned projects

Yes

Providing seed money
 Yes

Autonomy to the Principal Investigator/ coordinator
 for utilizing over head charges

Yes

• Timely release of grants Yes

- Submission of utilization certificate to the funding authorities Yes
- All the departments have been equipped with sophisticated and advanced instruments
- ♦ 24 hrs free internet facilities and Wi-Fi connectivity
- ♦ There is a centralized library and a Browsing Centre with licensed softwares 0.8 Linux novel

- NETWARE windows, language packages and multimedia tools, IEEE, CMIE prowess database, EBSCO, DELNET & SPSS package etc. which provide a strong base for research
- ♦ MoU's signed with Toledo University and San Diego State University USA, to facilitate research through faculty and students exchange programmes
- Financial assistance to publications in reputed National/International Journals.

### 3.1.5 How is interdisciplinary research promoted?

- ♦ There are open discussions promoted by Research Cell amongst departments on areas of mutual interest, funding schemes, shared support and extend of collaboration.
- ◆ Seminars / Workshop engaging large number of participants across disciplines are organized.

  This helps faculty to gain expertise and an exposure to perspective areas of research.

Workshops and Conferences organized in interdisciplinary fields

| S. No. | Date                    | Particulars   |
|--------|-------------------------|---|
| 1.     | 8.1.2009 & 9.01.2009    | International Conference on Industrialization of Institutional Research on Phytomedicines |
| 2.     | 16.12.2009 & 17.12.2009 | Recent Advances in Nanoscience  |
| 3.     | 30.08.2012 & 31.08.2012 | Alternative Energy Resources  |
| 4.     | 8-2-2009                | Historic and Economic Ideologies and Issues Immortalized in Literature                    |

## 3.1.6 Enumerate the efforts of the college in attracting researchers of eminence to visit the campus and interact with teachers and students?

- Organizing seminars, workshops, video conferences, guest lectures and interface meetings wherein eminent resource persons of national and international repute visit the campus and
  - interact with faculty and students. This enables them to update their knowledge in frontier areas of their discipline.
- Science Academy sponsored lecture workshops and refresher courses by science departments.
- ♦ Interface meetings with scientists of national and international repute







Young scientist award 2012

- Research advisory committee with leading researchers of reputed organizations have been constituted and meetings are held every year and their expertise is availed.
- 3.1.7 What percentage of faculty have utilized sabbatical leave for research activities? How has the provision contributed to the research quality and culture of the college?
- 0.5% of the faculty have utilized sabbatical leave for research activities.

### Contribution to research Quality and culture of the institution

- More faculty members are opting to utilize such facilities.
- This exposure has increased research output by way of publications and guidance to more number of research students.
- This has provided them a confidence to publish books in their discipline
- Provide details of national and international conferences organized by the college *3.1.8* highlighting the names of eminent scientists/scholars/who participated in these events.

| Year      | National | International | Total Number of seminars |
|-----------|----------|---------------|--------------------------|
| 2008-2009 | 11       | 2             | 13                       |
| 2009-2010 | 7        | 2             | 9                        |
| 2010-2011 | 19       | 1             | 20                       |
| 2011-2012 | 26       | 2             | 28                       |

### Refer ANNEXURE Va for details.

Details of the college initiative in transferring / advocating the relative findings of research of the college and elsewhere to the students and the community (lab to land)

### Transferring research findings to students

♦ The research findings are published in reputed journals so that students get access to it.

• Research projects undertaken by a department / investigator are either inter-related or indepth studies in a particular field. Hence will be referring to the work undertaken by the earlier research scholars.

### Transferring research findings to community

- "Water Shed Technology Constructing Ion Exchanges using Eco friendly Resins" developed by the Department of Chemistry under the DST IEDC project, is utilized in setting up a plant at Kannampalayam village, Coimbatore Dist.,
- A modified technology developed by the Department of Botany for preparing Soy paneer (Tofu) from soya bean seeds which was used in the preparation of a wide variety of delicious foods was demonstrated to the rural women at Karavalli Madhapur, Sulur, Coimbatore for a period of four days(14.4.12 to 17.4.12). This programme was sponsored by TNSCST.
- Application of fish scale designs on fabrics developed under the DST IEDC project by the Department of Zoology is on the process of being patented (REG NO 4264/CHE/2011 on 08.12.2011 at 11.42.35 AM and its CB No is R.No 12078) and utilizing this on a commercial scale for the benefit of the society will be undertaken shortly.
- Mobile Bug The circuit developed by the department of Physics under the DST IEDC project facilitating detection of data transmission at the net work path could be used to check unauthorized use of mobile phones. This technology is on the process of being patented and will be made available to the society shortly.
- The herbal product developed under the Ph. D

  Design of fish scales

  project, Formulation of herbal medicines for skin

  diseases of domestic animals is on the process of patenting and will be soon commercialized.



Design of fish scales

## 3.1.10 Give details on the faculty actively involved in research (Guiding students research, leading research projects, engaged in individual or collaborative research activity etc)

| C M-   | Department                 | Faculty invo | lved Guiding | No. of faculty undertaking |                |  |
|--------|----------------------------|--------------|--------------|----------------------------|----------------|--|
| S. No. | Department                 | M.Phil       | Ph.D         | Major Projects             | Minor Projects |  |
| 1.     | English                    | 10           | 3            | -                          | 1              |  |
| 2.     | Economics                  | 5            | 1            | 1                          | 1              |  |
| 3.     | History                    | 6            | -            | -                          | -              |  |
| 4.     | UG- Mathematics            | 3            | 2            | -                          | 2              |  |
| 5      | PG- Mathematics            | 5            | -            | -                          | -              |  |
| 5.     | Chemistry                  | 13           | 4            | 2                          | 3              |  |
| 6.     | Physics                    | -            | -            | -                          | 3              |  |
| 7.     | Botany                     | 11           | 9            | 5                          | 5              |  |
| 8.     | Zoology                    | -            | -            | 2                          | -              |  |
| 9.     | Commerce                   | 7            | 6            | 2                          | 1              |  |
| 10.    | Business Mangement (Aided) | 3            | 3            | 1                          | 1              |  |
| 11.    | Computer Science           | 2            | -            | -                          | -              |  |
| 12.    | MBA                        | 5            | 3            | -                          | -              |  |
| 13.    | MCA                        | 8            | 1            | -                          | 1              |  |
|        | Total                      | 78           | 32           | 13                         | 18             |  |

### 3.2 Resource Mobilization for research

## 3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization for last four years.

Around 40-45% of the total budget is earmarked for research

| S. No. | Non-Recurring                | 2008-09   | 2009-10   | 2010-11   | 2011-12   |
|--------|------------------------------|-----------|-----------|-----------|-----------|
| 1.     | Infra-structural development | `10129038 | `10364139 | `7293776  | `12233758 |
| 2.     | Purchase of equipments       | `1794599  | `2237603  | `13730698 | `13986966 |
| 3.     | Refurbishing laboratory      | ` 438783  |           | `1620310  | `272687   |
| 4.     | Purchase of books & journals | `371115   | `305192   | `2975464  | `633657   |
| 5.     | Purchase of software         | `191714   | `59932    | `734605   | `747306   |
|        | Recurring                    |           |           |           |           |

| S. No. | Non-Recurring  | 2008-09   | 2009-10   | 2010-11   | 2011-12   |
|--------|--|-----------|-----------|-----------|-----------|
| 1.     | Training faculty & students in advanced area of research | `796130   | `1443049  | `1002338  | `858929   |
| 2.     | Maintenance of instrument                                | `167130   | `544424   | `540887   | `748807   |
| 3.     | Renewal of database for research                         |           | `113061   | `374583   | `1066228  |
|        | Grand total  | `13888509 | `15067400 | `28272661 | `30548338 |

## 3.2.2 What are the financial provisions made in the college budget for supporting student research projects?

Financial provision is made for the following

- i) Chemicals,
- ii) Glasswares
- iii) Class-work materials (for Botany and Zoology) etc.
- iv) Purchase of new instruments, software etc., whenever there is syllabus revision necessitating new equipments.
- v) Maintenance of laboratory and equipments
- vi) Training to faculty members and research students in advanced research techniques
- vii) Stipend for select science projects at the PG level- 5000 per student under UGC –BSR scheme and TNSCST.

## 3.2.3 Is there a provision in the institution to provide seed money to faculty for research? If so, what percentage of the faculty has received seed money in the last four years?

Yes, For about 10% of the faculty seed money is provided by the college for their research work

## 3.2.4 Are there any special efforts made by the college to encourage faculty to file for patent? Yes

 $Innovations\ in\ research\ leading\ to\ patenting\ of\ methodology/product\ is\ encourgared\ at\ all\ levels.$ 

The additional efforts made are as follows:

- 1. Awareness on IPR, patent rights, patent laws and procedures involved are created through guest lectures / seminars/interface meetings etc.
- 2. Policy decisions taken to provide incentive to researcher who commercializes their inventions.
- 3. Arranging interface meetings with the persons facilitating the official procedures.
- 4. Help rendered at all levels including financial assistance to file the patent for the product / process.

### 3.2.5 Research Projects

### Provide the following details on ongoing research projects:

### A. College funded - nil

### B. Other agencies - national and international (specify)

| Minor/<br>Major   | No. | Year wise /<br>Duration | Title of the project  | Funding agency/<br>Industry | Total grant received (in ₹) |
|-------------------|-----|-------------------------|---|-----------------------------|-----------------------------|
| Minor<br>projects | 1   | 2011-12                 | Economic status of Brick workers in Coimbatore (Economics Dept.)  | UGC- SERO                   | 60,000                      |
|                   | 2   | 2012-14                 | Stability of Flows through Porous<br>Medium (Mathematics Dept.)   | UGC- SERO                   | 80,000                      |
|                   | 3   | 2012-13                 | Production of Biscuist and Chocolate with Millets (Botany Dept.)  | DST - IEDC                  | 1,00,000                    |
|                   | 4   | 2012-13                 | Bioconversion of Fish Waste to<br>Liquid Fertilizer - A Quantitative<br>Approach (Zoology Dept.)  | DST - IEDC                  | 1,00,000                    |
|                   | 5   | 2012-13                 | Development of Eco-Friendly<br>Mosquito Repellent cum Incense<br>(Zoology Dept.)  | DST - IEDC                  | 1,00,000                    |
|                   | 6   | 2012-13                 | Visual Door Knocking System (Physics Dept.)   | DST - IEDC                  | 1,00,000                    |
|                   | 7   | 2012-13                 | Easy Payable Shopping<br>(Computer Science Dept.)   | DST - IEDC                  | 1,00,000                    |
| Major<br>projects | 8   | 2011-14                 | Biosorbents in the Heavy Metal<br>removal from the Industrial Effluents<br>and Wastes (ChemistryDept.)  | DRDO                        | 22,54,000                   |
|                   | 9   | 2011-14                 | Agro -waste Utilization for Xylanase<br>Production from Bacteria and its<br>Industrial Applications.<br>(Botany Dept.)  | UGC                         | 7,25,800                    |
|                   | 10  | 2011-14                 | Assessment of Arbuscular<br>mycorhizal Association in a<br>Naturally Revegetated Lime Stone<br>Mine Spoils. (Botany Dept.)  | UGC                         | 9,51,800                    |
|                   | 11  | 2011-13                 | A Study on Measurement of<br>Innovation Management and its<br>Impact on Growth of Small Scale<br>Industries in the District of<br>Coimbatore (Business Management<br>Dept.) | UGC                         | 4,75,900                    |

| Minor/<br>Major | No.   | Year wise /<br>Duration | Title of the project  | Funding agency/<br>Industry | Total grant received (in ₹) |  |
|-----------------|-------|-------------------------|---|-----------------------------|-----------------------------|--|
|                 | 12    | 2011-13                 | Role of Public Sector Banks in<br>Promoting Women Entrepreneurship<br>in Coimbatore (Commerce Dept.)  | ICSSR                       | 4,52,575                    |  |
|                 | 13    | 2012-14                 | A study on Work Life Balance<br>of Women Police in Coimbatore<br>(Commerce Dept.)   | UGC                         | 2,35,000                    |  |
|                 | 14    | 2012-14                 | Transgender Persons: Socio -<br>Economic Status, Experience of<br>Indifference and Government<br>Support in Coimbatore District.<br>(Women Studies Center.) | ICSSR                       | 7,23,475                    |  |
|                 | 15    | 2012-15                 | Monitoring and Remediation of<br>Heavy Metal Contamination in<br>Coimbatore Wetlands by Green<br>Approach (Zoology Dept.)                                   | UGC                         | 7,85,000                    |  |
|                 | 16    | 2012-15                 | Exploration of Cancer in Western<br>Tamil Nadu using Geotechnical<br>Methods in GIS (Zoology Dept.)   | UGC                         | 10,08,800                   |  |
|                 | 17    | 2012-15                 | Applications of Novel Polyester for<br>Corrosion Inhibition of Metals<br>(Chemistry Dept.)  | UGC                         | 8,28,300                    |  |
|                 | 18    | 2012-13                 | Establishment of Innovation and<br>Entrepreneurship Development<br>Centre IEDC (PSGRKC)   | DST- IEDC                   | 8,00,000                    |  |
|                 | 19    | 2009-14                 | Fund for Improvement of<br>Infrastructure in Science and<br>Technology (FIST) (Botany Dept.)  | DST-FIST                    | 32,80,000                   |  |
|                 | 20    | 2012 -17                | Fund for Improvement of<br>Infrastructure in Science and<br>Technology (FIST)<br>(All Science Depts.)   | DST-FIST                    | 46,50,000                   |  |
|                 | 21    | 2012 -15                | Star College Scheme<br>(All Science Depts.)   | DBT                         | 55,00,000                   |  |
|                 | Total |                         |   |                             |                             |  |

3.2.6 How many departments of the college have been recognized for their research activities by national / international agencies (UGC-SAP, CAS, DST-FIST, DBT, ICSSR, ICHR, ICPR, etc) and what is the quantum of assistance received?

The following departments have been recognized at the national level for their research activities.

◆ Department of **Botany** has been elevated as 'FIST Sponsored Department' with the grant of ₹32.8 lacs by DST. (2009-2014)

- Proposal submitted by the Department of **Chemistry** received a grant at '0' level of ₹ 46.5 lacs from DST-FIST to support the infra structure of the college (2012-2017)
- ◆ UNDER DBT Star College Scheme, the science departments have received a grant of ₹55 lacs.
- ◆ Every year 2 to 3 students of Chemistry and Physics get selected out of 100 students on an all India basis for summer projects at IISC –Bangalore, Gauhati, NISER-Bhubaneswar-etc. with a stipend of ₹.7000/month
- M. Sc student projects of Chemistry and Botany are sponsored by TNSCST, Chennai.

Seminars/ Workshops conducted by various departments such as Tamil, French, English, History, Economics, Mathematics, Physics, Chemistry, Botany, Zoology, Commerce and Business Management are funded by a number of agencies like the UGC, DST, ICMR, DRDO, MOEF and TNSCST, CECRI, RSC, IAS with a total sponsorship of around ₹ 10,00,000/-



Practical session in progress in physics laboratory

## 3.2.7 List details of completed research projects undertaken by the faculty in the last four years and mention the details of grants received for such projects (funded by Industry/national /international agencies)

| Minor/<br>Major / IEDC | No. | Year wise /<br>Duration | Title of the project   | Funding agency/<br>Industry | Total grant received (in ₹) |
|------------------------|-----|-------------------------|--|-----------------------------|-----------------------------|
| Minor<br>Projects      | 1   | 2008-09                 | Micro Enterprises and Thrift and<br>Credit Management-A Potential for<br>Sustainable Excellence                            | UGC- SERO                   | 1,00,000/-                  |
|                        | 2   | 2008-09                 | A Study on the Entrepreneurial<br>Practices of Self Help Group<br>members in select Districts of<br>Tamil Nadu             | UGC- SERO                   | 80,000/-                    |
|                        | 3   | 2009-10                 | Farm Harvest Price Forecasting   | UGC- SERO                   | 75,000/-                    |
|                        | 4   | 2010-11                 | Application of Nitrogen<br>Hetero - cycles in the Correction<br>Protection of Metals                                       | UGC- SERO                   | 1,00,000/-                  |
|                        | 5   | 2010-11                 | Immobilization of Heavy Metal ions<br>from Effluent discharges by<br>Biosorption using Low Cost<br>Eco- friendly Materials | UGC- SERO                   | 1,00,000/-                  |

| Minor/<br>Major / IEDC | No. | Year wise /<br>Duration | Title of the project  | Funding agency/<br>Industry | Total grant received (in ₹) |
|------------------------|-----|-------------------------|---|-----------------------------|-----------------------------|
|                        | 6   | 2010 -11                | Synthesis and Characterization of<br>Nanomagnetic Materials by<br>Co-precipitation Method                                 | UGC- SERO                   | 50,000/-                    |
|                        | 7   | 2010-11                 | Design and Development of<br>Discriminative Epilepsy Prediction<br>Tool using Support Vector Machine                      | CSI - Chennai<br>Division   | 25,000/-                    |
| Major<br>Projects      | 8   | 2008-11                 | Environmental Concern: An<br>Attitudinal and Behaviourial<br>Analysis of Working Women in<br>Coimbatore                   | UGC                         | 5,78,300/-                  |
|                        | 9   | 2009- 10                | Establishment of Innovation and<br>Entrepreneurship Development<br>Centre ( IEDC)   | DST- IEDC                   | 11,35,000/-                 |
|                        | 10  | 2010-11                 | Establishment of Innovation and<br>Entrepreneurship Development<br>Centre ( IEDC)   | DST- IEDC                   | 8,00,000/-                  |
|                        | 11  | 2009- 12                | Indigenous Hyper Accumulator<br>Plants to Remediate Heavy Metal<br>contaminated Soils.                                    | UGC                         | 7,93,700/-                  |
|                        | 12  | 2010-12                 | Biodiesel Production from Jatropha<br>and Karanja oil using Microbial<br>Lipase as Catalyst and their<br>Characterization | DST                         | 13,33,770/-                 |
|                        | 13  | 2010-12                 | Bioprospecting of Plant Fibers  | DST-TNSCST                  | 21,47,280/-                 |
|                        | 14  | 2010-12                 | Sociological Evaluation of Camp<br>Life: Status and Problems of<br>Srilankan Refugee Women in<br>Coimbatore               | ICSSR                       | 4,19,250/-                  |
|                        | 15  | 2011-12                 | Establishment of Innovation and<br>Entrepreneurship Development<br>Centre IEDC  | DST- IEDC                   | 8,00,000/-                  |
| IEDC<br>Projects       | 16  | 2009-10                 | Production of Biomanure from the<br>Water Hyacinth from the Lakes of<br>Coimbatore (Zoology & Commerce)                   | DST- IEDC                   | 1,00,000/-                  |
|                        | 17  | 2009-10                 | Production and Development of<br>Nutritional Value of Tofu by<br>studying the Soy -bean Varieties<br>(Botany)             | DST- IEDC                   | 1,00,000/-                  |
|                        | 18  | 2009-10                 | Efficient Watershed Technology (Chemistry)  | DST- IEDC                   | 1,00,000/-                  |
|                        | 19  | 2009-10                 | Multi Deck Cup (BBM)  | DST- IEDC                   | 1,00,000/-                  |
|                        | 20  | 2009-10                 | The Gourmet's Diet (GRGSMS)   | DST- IEDC                   | 1,00,000/-                  |
|                        | 21  | 2010-11                 | Artificial Flower making and Fashion Jewellery (Mathematics PG& BBM)  | DST- IEDC                   | 1,00,000/-                  |

| Minor/<br>Major / IEDC | No. | Year wise /<br>Duration | Title of the project   | Funding agency/<br>Industry | Total grant received (in ₹) |
|------------------------|-----|-------------------------|--|-----------------------------|-----------------------------|
|                        | 22  | 2010-11                 | 3 in 1 Burglar Alarm (Physics)   | DST- IEDC                   | 1,00,000/-                  |
|                        | 23  | 2010-11                 | Eco -friendly Bags and Home<br>Furnishings from Banana Fibre<br>(Commerce)   | DST- IEDC                   | 1,00,000/-                  |
|                        | 24  | 2010-11                 | Production of Soy Icecream & flavoured Soy Milk (Botany)                     | DST- IEDC                   | 1,00,000/-                  |
|                        | 25  | 2010-11                 | Organic Biodegradable Pots from<br>Coir Fibre (Zoology)                      | DST- IEDC                   | 1,00,000/-                  |
|                        | 26  | 2011-12                 | Production of Natural Colorants<br>from Microbes (MBT)                       | DST- IEDC                   | 1,00,000/-                  |
|                        | 27  | 2011-12                 | Creative Appliques for Fabrics (Mathematics (UG)                             | DST- IEDC                   | 1,00,000/-                  |
|                        | 28  | 2011-12                 | Applique Designs of Fish Scales on Fabric (Zoology)                          | DST- IEDC                   | 1,00,000/-                  |
|                        | 29  | 2011-12                 | Mobile Bug (Physics)   | DST- IEDC                   | 1,00,000/-                  |
|                        | 30  | 2011-12                 | Eco- friendly Products - Sanitary<br>Napkins made of Wood Pulp<br>(Commerce) | DST- IEDC                   | 1,00,000/-                  |
| Total                  |     |                         |  |                             | 1,00,37,300                 |

### 3.3 Research Facilities

3.3.1 What effort are made by the College to keep pace with the infrastructure requirements to facilitate research? How and what strategies are evolved to meet the need of researchers?

### Efforts by the college to improve infrastructure:

- Funding from UGC, DST, DBT. DRDO and ICSSR under various schemes
- Major projects and Minor projects of faculty members
- Funding by Management

### **Strategies evolved:**

Establishment of Research Cell comprising the Dean, the Research Co-ordinator, Research Associate and faculty representatives from each department.

• In order to strengthen research, the committee meets periodically and discusses important issues like infrastructural facilities, expertise in several disciplines that could be involved in projects, availability of research facilities in sophisticated fields, availability of funds, allotment of funds, etc.

- Research project proposals to be submitted to various funding agencies are collected and orientated to make them more relevant and useful.
- Interdisciplinary projects in frontier areas are encouraged.
- Information on funding agencies for seminars, conferences, etc., are provided.
- Publication of seminar proceedings and workshop manuals
- Publication of hand books by the Research Cell providing the following information
  - Details of various funding agencies,
  - Guide lines for submission of projects / seminar proposals,
  - Time frame,
  - Extent of funds available and
  - Format in which the applications have to be submitted

### 3.3.2 Does the college have an information resource centre to cater to the needs of researchers?

Two main libraries with the following count of Books, Journals and Periodicals

◆ Text Books : 81247

• Reference books : 4100

♦ Periodicals : 240

Journals National:119, International:26

• Magazines National: 83, International: 12

- ◆ 24 hours internet facility through 512 KBPS ISDN leased line is available and accessible in 260 computers at a time
- ♦ Wi-Fi facility in the campus
- ◆ Licensed software (0.8 Linux, Novel NETWARE Windows, Languages packages and Multimedia tools,
- ♦ CMIE-prowess database
- ♦ DELNET membership

Facility to access databases with an access to 8418 journals.

EBSCO, ACM, IEEE, INFLIBNET, JGATE, ELSEVIER

## 3.3.3 Does the college provide residential facilities (with computer and internet facilities) for the research scholars and faculty?

Common internet facilities are available in the college hostel.

## 3.3.4 Does the College have a specialized research centre/work station to address challenges of research programmes?

A Centralised instrumentation laboratory to carry on advance level research has been set up with funds from UGC, DBT and DST supplemented with funds from the management. Research departments are channelising their potential to develop research projects and publications involving in-depth studies on focused areas, thus paving the way for the establishment of specialized research centres in future. Green house is a value addition.

## 3.3.5 Does the college have research facilities (centers) of regional, national and international recognition/repute?

The following research labs have been recognized and supported at national level. .

Botany & Chemistry department laboratories.

### 3.4 Research publication and awards

### 3.4.1 Highlight the major research achievements of the college through the following.

• Papers presented in regional, national and international conferences in the four years

| International | 69  |
|---------------|-----|
| National      | 154 |
| State level   | 06  |
| Total         | 229 |

• Publications per faculty

One publication in National / International Journal per year per faculty

• Faculty serving on the editorial boards of national and international journals

The following staff are on the Editorial Board of the Journal "Advances in Applied

Research" & "Prerana" published by the college

Dr. N. Yesodha Devi-Principal

Prof. S. Balasubramian – Director

Mrs. Rama Narayanan- Dean-Academic Affairs

Mrs. Geetha Mukund – Controller of Examination

Dr. K. Parameswari - Chemistry

Dr. R.S.Meerabai - Botany

Dr.P. Meena - Physics

Dr. K. Sumathi - Mathematics

Dr.N.Ezhili-Zoology

Dr.S. Vijaya - Computer Applications

Dr. B. Sripirabaa – MBA- Member on the editorial board of the following journals:

- ♦ Journal of Management Studies,
- ♦ African Journal of Business Management,
- ♦ Journal of Educational Administration and Policy Studies and
- ♦ Journal of Media and Communication Studies

Dr. S. Lavanya – Department of English - Member on the editorial board of the following journals

- International Journal of English and Literature
- ♦ Journal of English and Literature
- Faculty members on the organization committees of international conferences, recognized by reputed organizations/societies.

| S. No. | Name of the Conference                                | Organization  | Faculty   |
|--------|---|---|---|
| 1.     | NCE - 16  | SAEST - CECRI, Karaikudi  | Faculty members of the Chemistry department.  |
| 2.     | Sustainability through Green<br>Chemistry & Catalysis | Royal Society of Chemistry-UK (South Indian Chapter)  | Faculty members of the Chemistry department.  |
| 3.     | Academy Lecture Workshop                              | Indian Academy of Sciences,<br>National Academy of Sciences,<br>Indian National Science Academy,<br>New Delhi | Faculty members of Science Departments  |
| 4.     | DST-INSPIRE   | DST-INSPIRE   | Dr. A.Shamitha Begum Dr. K.Sumathi Dr. S Chitra-Co-ordinators & all Science Faculty as members of organizing committee. |

### 3.4.2 Does the college publish research journals?

Yes

- "Advances in Applied Research" bi-annual Journal launched on 24<sup>th</sup> June 2009
- "PRERANA" bi-annual Journal launched on 16<sup>th</sup> April 2009

### 3.4.3 Give details of publications by the faculty

• Number of paper published in peer reviewed journals (national/international)





| S. No. | Year    | Number of Publications in<br>International Journal | Number of Publications in<br>National Journal |  |
|--------|---------|--|---|--|
| 1.     | 2008-09 | 20   | 28  |  |
| 2.     | 2009-10 | 32   | 37  |  |
| 3.     | 2010-11 | 43   | 23  |  |
| 4.     | 2011-12 | 76   | 58  |  |

### • Monographs---

### • Chapters in books

| S. No. | Year    | Number of chapters in books |  |
|--------|---------|-----------------------------|--|
| 1.     | 2010-11 | 4                           |  |
| 2.     | 2011-12 | 5                           |  |
| 3.     | 2012-13 | 1                           |  |

### Editing books

The Relevance and Usefulness of European Literature for Innovations in Indian Literature, A Collection of Articles, 2009, Edited by Mangayarkarasi and Poornavalli Mathiaparnam, Language in India - Electronic Journal

### • Books with ISBN number with details of publishers

- 1. Dr.Kumudha, A.2012, Principles of Management (ISBN: 978-93-272-2203-6) Kalyani Publishers, New Delhi.
- 2. Gohulavani, G. 2009, A Text Book of Analytical Chemistry- (ISBN: 978-93-80060-73-6), MSK Publishers, Salem.

- 3. Gohulavani, G. 2009, A Text Book of Physical & Organic Chemistry (ISBN: 978-93-80060-72-9), MSK Publishers, Salem.
- 4. Dr.Kanchana, M and Vasandha, S. 2012, National level Workshop Proceedings on Recent Technologies in Crop Improvement, (ISBN: 978-81-907494-7-3) Anuradha Publishing Company, Chennai.
- 5. Kanchana, M 2012, Gene Pyramiding in Sugarcane Crop, (ISBN: 978-3-8473-1411-0), Lambert Academic Publishing, Germany.
- 6. Nagesh Kumari, M. 2010, Socio Economic Profile of Women Prisoners, ISBN: 978-3-8383-8952-3, Lap Lambert Academic Publishing, UK.
- 7. Sundaramayil, R. 2009, *Potrathakka Tamil Aringarkal*, (ISBN: 978-93-80-543-05-5), Iris Publications, Coimbatore.
- 8. Proceedings of the International Seminar on Mathematical & Experimental Physics.2009, Edited by the Faculty, Department of Physics, PSGR Krishnammal College for Women, (ISBN: 978-81-8487-057-2), Narosa Publication, New Delhi.

### • Books without ISBN number:

- 9. Sumathy Ram, 2010, Koditta Idhangalai Nirappudhal, VAMSI Books, Thiruvannamalai.
- 10. Jothimani, R,2010, *Dhisaigalai thiruppu, Kavibha Padhippagam*, Chennai.
- 11. Values an Indian Perspective (A text book on value education) 2009, Published by PSGR Krishnammal College for Women
- 12. SAMATA- A Biography of Dr B R Ambedkar, 2009, Published by PSGR Krishnammal College for Women
- 13. Padmayathi, R and Mynavathy, B. 2012, Socio Cultural Perspectives in English Literature,
- 14. Glimpses of Mahatma Gandhi, 2011, edited and published by PSGR Krishnammal College for Women, Coimbatore.
- 15. Krishnasamy, R.,Rama Narayanan and Sasikala,G. 2012, "A Hand book on Project Proposals" published by PSGR Krishnammal College for Women, Coimbatore.
- 16. Lab Manuals for all UG and PG courses of science departments published by PSGR Krishnammal College for Women, Coimbatore.
- Number listed in international database (e.g. Web of Science, Scopus, Humanities, International Complete, Dare Database-International Social Sciences Directory, EBSCO host etc) Nil

• Citation index – range - 3-5

• Impact factor – range - 0.8-2.8

• *h-index* - 1

### 3.4.4 Indicate the average number of successful M.Phil and Ph.D scholars guided per faculty.

M.Phil-2 per faculty

Ph.D-1 per faculty

### 3.4.5 What is the stated policy of the college to check malpractices and misconduct in research?

- Declaration received from researchers assuring their work as original while submitting their dissertation to the University for assessment and while submitting their research paper for publication.
- Plagiarism checked by software

### 3.4.6 Does the college promote interdisciplinary research?

Yes,

If Yes, how many interdepartmental /interdisciplinary research projects have been undertaken and mention the number of departments involved in such an endeavour.

Departments such as Chemistry, Botany, Zoology, Physics and Mathematics are involved in collaborative research work.

### **Projects in Interdisciplinary areas**

- 1. Preparation and characterization of nano structured transition of metal oxides from metal carbonylate complexes as precursors.
- 2. Electrospun paclitaxol loaded poly-€-caprolactone for drug delivery.
- 3. Synthesis and characterisation of Sn-Sb inter metallic composites as anode materials for Li ion batteries.
- 4. Optimization of production parameters of biodiesel from bran oil and corrosion studies of diesel engine parts using *Pongamia pinnata* biodiesel.
- 5. Spiropyrazolines as corrosion inhibition for mild steel in acidic media-experimental and theoretical investigations.
- 6. Statistical analysis on performance of industries.
- 7. Flow through porous media.
- 8. Electrochemical performance of Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub>/Zn composites as anode materials for Li rechargeable

cells.

- 9. Proton exchange membrane fuel cell based ethanol sensor.
- 10. TSAR studies on substituted Benzimidazole, imidazolines and aminopyrimidines as antimicrobial agents.
- 11. Formulation of herbal medicine for skin diseases of domesticated animals

### 3.4.7 Mention the research awards instituted by the college.

- "Best Faculty Award",
- ♦ "Best Performing Department Award"



Ms. Geetha Mukund, CoE receiving the faculty excellence award



### 3.4.8 Provide details of

 Research awards received by the faculty-Tamil Nadu Council of Science and Technology

Dr. M. Muthulakshmi Andal, Asst. Professor of Chemistry – Young Scientist Award

### Instituted by the Management

 $Dr\,Padmaja\,Manoharan, HOD, Department\,of\,Commerce$ 

Dr A Kumudha, Associate Professor, BBM Department

• Recognition received by the faculty from reputed professional bodies and agencies –

Awards instituted by

Cognizant Technology Solutions

Dr. V. Sashi, Associate Professor, Department of Botany

Dr. R.S. Meerabai, Associate Professor, Department of Botany

Dr. N. S. Malathy, Associate Professor, Department of Botany

Dr. K. Sumathi, Associate Professor, Department of Mathematics

Dr. M. Nagesh Kumari, Associate Professor. Department of Economics.

- ◆ Bharat Siksha Ratan Award by the Global Society for Health and Educational Growth, New Delhi in 2012 for excellence in chosen field of activity on the occasion of 36<sup>th</sup> National seminar on Individual Achievement & National Development.
- ◆ Dr. Radhakrishnan Gold Medal Award by the Global Economic Progress & Research Association, Tamil Nadu in 2013 for outstanding individual achievement and distinguished service in education.

### Instituted by Management Associations

Prof. S. Balasubramanian- *Best Innovative B School in Teaching Methodology Award* 2012 – Awarded by the DNA group and Stara of the Industry group in Mumbai.

Dr. B. Sripirabaa, Asst. Professor, GRGSMS.

- ♦ *CMA Best Teacher Award* by Coimbatore Management Association at the National Management Day celebrations on 21<sup>st</sup> February 2011.
- ◆ Ramaswamy P Aiyar Best Young Teacher Award and the Silver Medal in the JL Batra Best Research Paper Contest at the 24<sup>th</sup> AIMS Annual Convention at Hyderabad during Aug 25 -27, 2012

Dr. J. Anitha, Asst. Professor, GRGSMS.

◆ Silver Medal of the J.L. Batra Best Research Paper

Contest for the paper on "Instrument Development
and Validation: Educator Professional
Characteristics Scale" (co-authored with Ms.

Vandana Madhavkumar, Assistant Professor,
GRGSMS)



Dr. Sashi receiving the best faculty award

- 3.4.9 State the incentives given to faculty for receiving state, national and international recognition for research contributions.
- Cash incentives provided by the management for the recognition at the state, national/ international level.
- 50% of the travel expenses borne by the management if such a recognition needs any travelling.

### 3.5 Consultancy

- 3.5.1 What is the stated policy of the College for structured consultancy? List a few important consultancy services undertaken by the College.
- ♦ 40% of the revenue generated is utilized for maintenance.
- 60% is awarded to the concerned faculty.

The areas where consultancy services available are

### Science Departments

- (i) Vermicompost Organic manure production
- (ii) Biodiesel
- (iii) Statistical analysis
- (iv) Recording and interpretation of spectral data and Impedence analysis

### Management Departments

- (v) Mentoring of senior executives
- (vi) Assessing quality services
- (vii) 360-Degree performance appraisal system
- (viii) Preparation of marketing manual
- (ix) Employee satisfaction survey



**Demonstration of vermi-composting** 

## 3.5.2 Does the College have College-industry cell? If yes, what is its scope and range of activities?

Though there is no such established body, Industry- Institution interaction is carried on specific days in a year

- MBA department organizes Industry- Institute Interface Day every year and holds discussions on topics such as contribution of management education to corporate governance, values & ethics to be upheld in organizations etc. In this forum leaders from the Industry & Intellectuals of the academics interact with each other, explore areas of common concerns and share their experiences.
- MCA department also organizes such programmes every year providing an industrial exposure to the students.
- ◆ Redesigning undergraduate Commerce curriculum to suit the needs of the industry is being carried out jointly with Tata Consultancy Services and HCL Technologies and will be introduced in the academic year 2013-14. 200 students are undergoing a short term certificate course in Finance and Accounting for Business Process Services in the current academic year, 2012-13.
- ♦ All Statutory Committees have representatives from Industry as members and they provide significant inputs on industry requirements.
- ◆ The e- Cell of the college motivates students to become entrepreneurs through guest lectures and awareness programmes.

# 3.5.3 What is the mode of publicizing the expertise of the College for consultancy services? Mention the departments from whom consultancy was sought.

- The details of consultancy services offered by the college is available in the college website.
- Particulars about the available consultancy services are sent through letters, emails, etc to various institutions.



Young scientist award 2012

• Word of mouth information passed on to other institutions

## 3.5.4 How does the College encourage the faculty to utilize the expertise for consultancy services?

Fund raising by consultancy services is one of the assessment criteria for performance evaluation of staff which is carried out every year and the best performing faculty is awarded. This is one of the criteria for career advancement of the faculty in the self financing stream. It motivates the faculty to use their expertise in consultancy.

## 3.5.5 List the broad areas of consultancy services provided by the College and the revenue generated during the last four years.

| Year        | Department          | Name of the Consultancy Services             | Amount generated (in ₹) |
|-------------|---------------------|--|-------------------------|
| 2008 - 2009 | Zoology             | Vermi compost - Organic Manure<br>Production | 500                     |
|             | Mathematics (Aided) | Statistical Analysis                         | 550                     |
|             | Chemistry           | Infra red Spectral Data                      | 26, 000                 |
|             | MBA                 | Titan Industries Limited, Hosur              | 2,40,000                |
| 2009 - 2010 | Literature          | In service training for school teachers      | 2,883                   |
|             | Mathematics         | Statistical Analysis                         | 2,500                   |
|             | Chemistry           | Infra red spectral data and interpretation   | 20,800                  |
|             | MBA                 | Titan Industries Limited, Hosur              | 2,50,000                |
| 2010 - 2011 | Literature          | BEC Course                                   | 46,000                  |

| Year        | Department                           | Name of the Consultancy Services  | Amount generated (in ₹) |
|-------------|--------------------------------------|---|-------------------------|
|             | Botany                               | Bio- fuel, protocol development. for Sandeep & Co, Metupalayam.             | 3,500                   |
|             | Chemistry                            | Infra red spectral data and interpretation                                  | 13,950                  |
|             | MBA                                  | Titan Industries Limited, Hosur   | 1,50,000                |
| 2011 - 2012 | 012 Mathematics Statistical Analysis |   | 3,000                   |
|             | Chemistry                            | Infra red spectral data, UV-Vis,<br>Potentiostat and interpretation of data | 30,000                  |
|             | MBA Titan Industries Limited, Hosur  |   | 2,00,000                |
|             |                                      | TOTAL   | 9,89,683                |

### 3.6 Extension Activities and Institutional Social Responsibility (ISR)

# 3.6.1 How does the college sensitize the faculty and students on institutional social responsibilities? List the social outreach programmes which have created an impact on student's campus experience?

The college has *several service wings* such as NSS, Rotaract Club, YRC, NCC, Yi-Net & Ecowatch Club that initiates students in community related activities. Activities of the UGC sponsored centres such as Dr.Ambedkar Studies Centre, Gandhian Studies Centre & Centre for Women Studies are *oriented towards linking the institutions with the society*. According to the Choice Based Credit System followed by the institution, *extension activities are an integral part of curriculum and participation in extension activities is mandatory* and carries one credit. Faculty members in turn are given the additional responsibility as NCC officer, NSS coordinator etc.,

### Sensitization of students to social activities:

- Lecture programmes are organized to sensitize students on the social responsibilities of students and the institution.
- Special cash incentives are given to outstanding NCC cadets and students in other service wings.
- Students and faculty are encouraged to participate in extension services by granting 'leave on duty' and adjustments in the working schedule.
- ◆ College takes an initiative to collaborate with NGOs and government agencies to organize programmes which brings students' participation in social activities to the lime light

### List of Social Outreach Programmes organised.

### Awareness Programmes -

➤ Women's duties – responsibilities & rights,

- Legal awareness, safety of road users, insurance awareness
- ➤ Registration of marriage
- > Save electricity rally
- ➤ Health and hygiene

### **Demonstration Programmes**

- ➤ Blood group identification
- ➤ Initiative to issue LLR
- > First aid training,
- ➤ Street plays and cultural programmes on the effect of Drug abuse, Female infanticide, Dowry harassment & AIDS awareness
- Establishment of libraries in rural areas
- Blood donation
- ➤ Medical camp
- Organic farming and vermicomposting
- > Food processing





## 3.6.2 How does the College promote College-neighborhood network and student engagement, contributing to the holistic development of students and sustained community development?

Educational institutions play a vital role in the development of social consciousness amongst students. Hence service oriented programmes that contribute to the upliftment of economically weaker sections of the society are organised and over the years thousands have been benefitted by such programmes. Some of these activities are listed below. These are carried out by the various service wings and UGC sponsored centres of the college.

- ♦ Skill based training to SHG women to improve their livelihood
- ♦ Address by physicians regarding health issues and fitness programmes,
- Address by lawyers regarding women's legal rights,
- Lecture programmes by police officials on students' responsibilities in maintaining law and order and vulnerability of women students to anti social elements, ways to protect themselves, cyber crimes etc.
- Civil service coaching classes for the less privileged students,

 Workshops on entrepreneurial skill development for the economically backward groups are organized as detail below:

| Title of the Scheme  | Faculty          | Year    | Particulars   | Funding agency<br>&Amount<br>sanctioned |
|--|------------------|---------|---|---|
| Dissemination of Innovative Technology   | Dr.S.N.Padmadevi | 2009-10 | Imparting entrepreneurial skill to the rural Self Help Group on vermicomposting for their economic upliftment.                    |   |
| Dissemination of Innovative Technology   | Dr.M.Kanchana    | 2011-12 | Imparting entrepreneurial skill to the rural women on soy paneer (Tofu) production.   |   |
| Creation of Scientific<br>Awareness among<br>Students, SHG members<br>and Rural Farmers<br>(Ongoing) | Dr.A. Shamitha   | 2012-13 | Imparting skill to<br>students, SHG members<br>and rural farmers by<br>special lectures,<br>workshops and awareness<br>programmes |   |

3.6.3 How does the College promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/International agencies?

The extension activities like NSS, NCC, YRC etc are included in the curriculum and made mandatory in order to make the students participate in various extension programmes.

3.6.4 Give details on social surveys, research or extension work (if any) undertaken by the College to ensure social justice and empower the under-privileged and most vulnerable sections of society?

Social survey of Annur block was undertaken for the establishment of Women Technology – Park. Social surveys & research activities carried out by the UGC sponsored centres:

### **Centre for Women Studies**

- 1. Empowerment of Women through Self Help Groups at Annur Block, Coimbatore District to know the socio-economic condition and the freedom provided to them for taking decisions.
- **2.** Socio-economic and Health Condition of the Elderly Women in Urban Areas of Coimbatore District.
- 3. A Study on the Practice of Dowry with Special Reference to Sulur Panchayat Union
- **4.** Socio-economic Profile of Women Prisoners

  To understand the nature and extent of crime and work out strategies for the rehabilitation of women offenders.

### 5. Social - Cultural Characterisics of the Kurumba Community

To study the status of Kurumba women and to analyse the change of occupation among Kurumba caste group in the study area.

- 6. A Study on Sustainable Marketing Ability of Self Help Group Women in Coimbatore District, Tamilnadu
- **7.** Problems and Prospects of Visually Challenged over the Decades.

Creating an awareness on Government schemes beneficial to visually challenged persons.

### 8. A Study on Kadar Women and their Rights

To assess the entrepreneur skill of of Kadar women.

9. Violence against Domestic Workers

To appraise the problems faced by the domestic workers and creating an awareness on safety measures advocated by the Government to domestic workers.

10. Impact of Skill Training – An Evaluation

To provide skill training to the self help group women and rural youth to make them entrepreneurs, thereby initiating a social upliftment of the poor and needy.

11. Study on Management of Self Help Groups towards Entrepreneurial Practices in select districts in Tamilnadu.

To analyse the factors influencing and motivating women empowerment in SHG.

12. Sociological Evaluation of Camp Life, Status and the Problems of Sri Lankan Refugee Women in Coimbatore District.

To understand the problems faced by the refugee women in the camp and to evaluate the facilities and opportunities provided in the state policies for refugee women.

### 13. Ongoing Projects

- Interventional Study on Tea Shops implemented under Livelihood Scheme by PudhuVazhvu Project in Coimbatore region. Collaborative study with Tamilnadu Pudhu VazhvuThittam, Coimbatore District during 2011-2012
- Transgender Persons: Socio-Economic Status, Experience of Indifference and Government Support in Coimbatore District funded by ICSSR, New Delhi during 2012-2014 with a budget outlay of `.7,23,475.

### **Gandhian studies Centre**

• Relevance of Gandhian Ideas in Present Day Educational Scenario.

- Gandhiji and Leadership Qualities.
- ♦ A Study on Attitudes of Youngsters towards Old Age People.
- ◆ A Study on Students' Attitudes towards the Existing Roles and Responsibilities of Elders at Home.
- ◆ A Study on Personal Care and Hygiene of Elderly People.

### **Dr. Ambedkar Studies Centre**

- Ethno botanical studies and socio-cultural life of tribals of Javvadhi Hills
- Ethno medicinal plants used by tribals of Nilgiri district.

### Extention Activities by Dr. Amdedkar Studies Centre

- ◆ 24.12.08 to 30.12.08- Abacus training to school children.
- 29.12.08 A programme on communicative skills was organized for school children
- ◆ 11.07.08 to 06.01.09- Yoga and meditation classes conducted for 250 participants by "Art of Living" forum.
- Creating an awareness on communal harmony at Kempanaickanpalayam, Coimbatore District.
- Enacting a drama to stress the importance of educating women in the adopted village.
- ♦ 28.11.10 to 30.11.10.- In commemoration of the 50<sup>th</sup> year of Panchayat Raj ,an orientation programme for women panchayat members including panchayat presidents and councellors regarding their powers and functions was conducted. Prof. Dr. G. Palanithurai of Gandhigram University was the resource person.
- ♦ 31.12.10- An awareness programme on "Waste Water Recycling & Water Conservation Methods" for rural people of Kethanur village was conducted.
- ◆ 28.01.11- A quiz programme was organized for students on Dr. B. R. Ambedkar and the Indian Constitution.
- ◆ 17.03.11 —A UGC sponsored national seminar was organized on the topic 'Dr. Ambedkar and Social Justice as Enshrined in the Indian Constitution'.

### **Extention Activities by Gandhian Studies Centre**

- ♦ 11.8.09- Super Congress 2009 'Young for a United World' was organized in collaboration with 'Shanthi Ashram'. This congress served as a platform for inter religions dialogue among the young people. 60 foreign students from 14 countries participated.
- ♦ 23-3-10 In commemoration of the 80<sup>th</sup> year of Dandi March a field trip was arranged for the

students to the Mahatma Gandhi Ashram, Anamalai and a Peace March was under taken.

- ♦ 19.09.11- A workshop on "Peace and Conflict Resolutions" was organized.
- Nov-09 An orientation programme to NGOs was conducted for one month . 30 members from 12 non government organizations participated.



Topics such as value education, management practices, strategies in monitoring and execution of community development programmes were covered.

- ♦ 24.12.09 In commemoration of the 140<sup>th</sup> year of non violence, an international programme on 'Declaration of the Day of Prayers and Action for Children campaign (DPAC 2009)' was organized.
- ◆ In commemoration of the 62<sup>nd</sup> death anniversary of Gandhi, a Sarvodaya mela was organized on (13<sup>th</sup> day) in collaboration with Sarvodaya Sangh, Coimbatore. A seminar on 'Gandhi and Sarvodaya' was held on 12.02.10.
- ♦ 23.02.10 In collaboration with Karl Kubel

  NCC cadets 2012-2013

  Institute for Development of Education (KKID) a

  training programme to German students was organized. Various matters relating to culture,
  politics and administration, food habits etc., of both the countries were discussed by the
  students.
- Patronizing *khadi* and *khadi* products has been a regular feature over the years during festival seasons in college.
- ♦ 16.03.11 In commemoration of the Centenary Year of "Hind Swaraj" a national level seminar was organized.
- ♦ 14 & 15.10.11 A National Seminar on "Sustainable Development and Empowerment of Women" was organized.
- 31.01.12 An International Conference 'Sarvodhaya Leadership Summit' was jointly organized

with Shanthi Ashram, Kovaipudur, Coimbatore.

- ♦ 20.03.12 to 30.02.12 Entrepreneurship development programme for rural women In order to improve the economic status of women in rural area training on producing various products out of jute such as wall hanger, mobile phone pouch, money purse etc., was given.
- 3.6.5 Give details of awards/recognition received by the College for extension activities organized by the College, comment on how they complement student academic learning experience and specify the values and skills inculcated?

Award to Dr. N. Yesodha Devi, Principal, "*Smiling Public Service Award*" by CRPF with Rotary Club of Tex City on the occasion of International Women's Day 2012.

### **NCC**

*Overall Championship Trophy* (2009-10 & 2012-13) in the annual training camp conducted by 5 TN Girls BN NCC, Coimbatore.

### **Youth Red Cross**

• The 'Best College Award 'during the Founder's day function held at IRCS, Upplipalayam on 25.12.2012.



### **Rotaract Club**

- Best campus based club (2008-09, 2010-11,2011-12)
- Best academics (2008-09)
- Best bulletin award and Best reports awards (2008-09. 2009-10, 2011-12)
- Best implementation of district projects (2010-11)
- Outstanding club award for hosting the district conference CONTEZZA(2011-12)
- Best award for maximum participation in district assembly and district conference (2012-13)
- Super active status award (2010-11)
- Best 20 Projects classic colorist(2010-11, 2011-12)

### Yi Net

• **Best Yi Net award'** at the national level (2010-11, 2011-12)

### Awards won by Volunteers

### **Youth Red Cross**

• Best YRC members and Best Coordinator Award (2010)

### **Rotaract Club**

- *Outstanding staff coordinator award* to Mrs. J. Santhosh Priya (2009-10)
- Best academic performance award Lavanya, N. (2009-10)
- Outstanding new rotaractor award Trx. Mansi V. Radia(2010-11) Rtr Neema
- Outstanding rotaractor award Rtr Nandhini, V. (2010-11)
- Navaratna President Rtr Nivetha (2009-10), Rtr Nandhini (2011-12)
- District level award outstanding campus based club panchayat secretary 'Rtr Vandhanalakshmi'(2011-12)
- Sapratna Secretary award Rtr. Preetha, M.K. (2011-12)
- 5star President Rtr Deepika(2011-12)
- 5star Secretary Rtr Neeraja(2011-12)

### Yi Net

• *Best teacher coordinator award* (2010-11, 2011-12)—Ms. G. Kalavathy.

### **NCC**

- Lt.Kavitha.N.V-gold medal-Excellence in leadership and officer like qualities (2009-12)
- Air wing Aparna Shree, K. R. ATC Best Cadet (2008-09)
- Kiruthika, S. RDC-IGC-Best Cadet Gold Medal (2009-10)
- Sindhu Priya R. TSC- IGC- Health and Hygiene- Gold Medal (2010-11)
- Sindhu Priya, R. TSC- Delhi Sports Overall Individual Champion (2010-11)
- Karpagajothi, S. Army ATC Best Cadet Silver Medal (2010-11)
- Thota Anusha Air wing ATC Best Cadet- Gold Medal (2010-11)
- Shobana.V- TSC- IGC- Health and Hygiene-Bronze Medal, (2011-12)
- Renuka Devi.S TSC –Delhi Tent Pitching Gold Medal(2011-12)
- Indumathi.A TSC- IGC- Health and Hygiene-Bronze Medal(2011-12)
- Anitha, .T ATC Army Cross Country- Gold Medal (2011-12)



- Subashree. N.B ATC Army Cross Country- Silver Medal (2011-12)
- Brindha, R.–ATC Army Cross Country-Bronze Medal (2011-12)
- Dhivya, R.—TSC-IGC-Firing-Gold Medal (2011-12) Field Signal-Silver Medal (2011-12)
- Vijayalakshmi, M. TSC (IGC) All Wing Firing Gold Medal (2011-12)
- Anitha, T.TSC (IGC) Map Reading Silver Medal (2011-12)
- Madhumathy, S. Silver Medal Best Cadet (2012-13)
- Lakshmi, K. Bronze Medal- Cross Country Event (2012-13)

### **NSS**

- Saranya, R. Best NSS Volunteer Award (State Level) 2008-2009
- Dr.M.Renuka Best NSS Programme Officer Award (State Level) 2009-2010
- Anusha, R.A, Swarna Sindhu, K and Swathika, S.- Best NSS Volunteer Award (State Level) 2008-2009 &2009-2010.
- Anusha, R.A. National Level Indira Gandhi Award (2010-2011).
- Dr.M.Renuka Indra Gandhi Award for Best NSS Programme Officer (National Level)-2010-11
- Indra Gandhi Award for the Best College in NSS activities.-2011-12
- 3.6.6 Reflecting on objectives and expected outcomes of the extension activities organized by the College, comment on how they complement students' academic learning experience and specify the values and skills inculcated?

The outcome of the extension activities organized by the college are:

- Students understand the difficulties faced by the downtrodden and the underprivileged, their immediate requirements to lead a dignified life, socio-economic problems prevailing in the society etc.,
- Students realize their role in creating a healthy atmosphere for the future generation.
- They learn about the importance of education and inculcation of values to have a firm platform for decent living.
- Creates an awareness among the public to minimize pollution and the need to preserve natural resources.
- 3.6.7 How does the College ensure the involvement of the community in its outreach activities and contribute to the community development? Detail the initiatives of the College which have encouraged community participation in its activities.
- ♦ Through the establishment of UGC sponsored centres such as Gandhian Studies, Women

Studies & Ambedkar Studies where in students jointly undertake extension activities

- ♦ The college ensures the involvement of the community by organizing programmes such as holiday school for corporation school children, orientation programme for women panchayat members, etc with resource persons from the college as well as outsiders.
- ◆ DST sponsored 'INSPIRE' programme was organised for school children to create a scientific temper in students at an early age, so as to improve the pool of scientists in future.450 students were benefitted by this programme.
- ♦ As part of the extension activity, help was rendered to the non governmental organizations such as Vasantha Memorial Trust to conduct 'Jumble Sale 2009' wherein the benefits from the sale was given to cancer patients.
- Establishment of library in the neighborhood village school that has promoted the reading habit of students.

A regional centre for Geriatric Care(sponsored by

NISD) established offers courses of varying duration to diverse target groups.





Dr. Baktavatsalam addressing senior citizens on health care



'INSPIRE' programme interactive session

- 3.6.8 Does the College have a mechanism to track the students' involvement in various social movements/activities which promote
- ◆ Involvement in community oriented activities forms a part of the curriculum
- Designated faculty supervise the extension activities of students enrolled in NCC, NSS, YRC, Rotaract etc.,



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citizenship roles?

- Students are evaluated based on certain parameters and it carries one credit.
- 3.6.9 Give details on the constructive relationships (if any) with other institutions in the nearby locality in working on various outreach and extension acitivities.

The following outreach programmes have been organized in collaboration with other institutions in the nearby locality:

### **Consumer Forum**

- A seminar on consumerism by Consumer Forum.
- In coordination with the Consumer Forum a seminar was organized to inculcate in students the habit of getting bills for the goods purchased and to check the expiry dates for the goods before purchasing.

### Social wings & sponsored centres

- ♦ Sale of *Khadi* in campus
- First Aid training programme for non teaching staff organised jointly with St. John Ambulance
- Free eye camp in villages with Sankara Eye Hospital
- ♦ Free dental camp
- Several programmes are arranged in association with Vasantham Memorial, Shanthi Ashram and Bharathiar University
- ♦ Blood donation camps with CMCH
- Disaster Management programme with Ganga Hospital
- Awareness on the importance of breast feeding & early detection of cancer by gynecologist and medical practitioners.
- 3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

### Awards won by institution

Same as 3.6.5

### 3.7 Collaboration

3.7.1 How does the College's collaboration with other agencies impacted the visibility, identity and diversity of activities on the campus? To what extent has the college benefited academically and financially because of collaborations?

The college has collaboration with agencies such as Helen- O- Grady, Silver Tongue, 3C's, CTS, ACS, ICWA,TCS, , Ramya Nursery etc. Through these collaborations the college has gained the following benefits.

### **Academic Benefits**

- Designing the curriculum of certain courses
- Improving the communicative skills of students
- Providing an hands on training in practicals
- Exposure provided through guest lectures on the developing new trends in the subject

### Diversity of activities based on the collaboration

1. Helen-O-Grady, the academy of drama.

English department collaborates with this international institution for designing the practical component of the curriculum for the subject 'Drama' included in the add on diploma course. On completion of this course a certificate is awarded by Helen-O-Grady.

- 2. Silver Tongue Coimbatore.
- A Certificate course on "Communicative English" is conducted by the English department in tie up with this organisation. The oral component of creative writing and theatre arts is handled by Silver Tongue.
- ◆ Coaching classes for students to improve the oral skills for Business English certificate exams. are also conducted by Silver Tongue.
- 3. Cognizant Technology Solutions, an IT corporate
  - In house training for staff and students of the college in the field of Finance is provided.
  - Guest lectures are organized.
  - Awards to the best faculty to encourage their performance.
  - ◆ A certificate course on "Finance and Accounting" is introduced in the current academic year.
- 4. Institute of Chartered Accountancy of India
- 5. Institute of Company Secretary of India
- 6. Institute of Cost and Works Accounts of India

The college has an MoU with all the above organizations and coaching centres are functioning in the college to provide professional coaching to preliminary examinations in CA, ICWA and ACS.

In the past four years 250 students benefited by such programmes.

7. Regional Centre in Geriatric Care

The Institution is recognized as a Regional Centre in Geriatric Care by the National Institute of

Social Defence, an autonomous body of the Ministry of Social Justice and Empowerment, New Delhi in 2008.

### Main objectives of the Centre

- To develop a cadre of professionals in geriatric care to provide quality life in old age
- ◆ To provide a comprehensive knowledge on basic issues of geriatric care
- ♦ To enhance the counseling skills of old age functionaries.
- To sensitize the youth, parents and elders to bridge the intergenerational Gap
- To create awareness among elders about the health issues of senior citizens
- ◆ To provide basic knowledge of computers to the senior citizens to utilize the leisure time productively.

Based on these objectives several programmes focusing the health and social issues of older persons of India is addressed every year. The following programmes ,trainings and courses are carried out in 2012.

- ♦ 20<sup>th</sup> February-20<sup>th</sup> August 2012 Six month certificate course in Geriatric Care
- ◆ 1<sup>st</sup> February 29<sup>th</sup> February 2012 One month certificate course on Basic issues in Geriatric Care
- ♦ 12<sup>th</sup> March-16<sup>th</sup> March 2012 Five days training in Geriatric Counseling
- Two one day sensitization programme for school teachers, parents and grand parents to bridge the intergenerational Gap.
- ♦ 5th March -22<sup>nd</sup> March 2012 Twenty days community training in computer
- ♦ 21<sup>st</sup> M arch2012 One day sensitization programme on Health Issues of Senior Citizens
- 8. Ramya Nursery, Coimbatore.

The Nursery is run by qualified Horticulturists who provide field training to students of the department of Botany, undertaking the Add on course on Commercial Horticulture.

### 3.7.2 Mention specific examples of how these linkages promote

### Curriculum Development

- ♦ The add on certificate and diploma course curriculum is designed partly by the collaborating agencies to suit the job requirements.
- ♦ BCA, B.Sc.Computer Science and B.Sc. IT departments have collaboration with SITARC. The job oriented courses-PC Hardware and Networking, Web Designing, Mobile Applications, Game Designing etc., are made available to the students.

### Internship and on the job training

- ◆ Students are accommodated for their internship summer training programmes in reputed organizations. S.Induja and L. Karthika of II M.Sc Chemistry underwent internship in II Sc., Bangalore and IIT Gauhati in 2011-12.
- Every year few PG students take up internship / projects in institutions such as IGCAR, Kalpakkam; CECRI, Karaikudi; CLRI, Chennai; II Sc Bangalore etc.

### Faculty Exchange and Development

- ◆ TCS conducted a FDP programme on the curriculum of "Industry Oriented Business Process Services".
- CTS organizes guest lectures and in-house training for faculty and students.
- ◆ The National Convention of Electrochemists (NCE-16) was conducted by the Department of Chemistry in collaboration with CECRI, Karaikudi.
- Guest lectures and workshops are organized by the science departments in collaboration with the Indian Academy of Sciences.

### Research and Publications

Central Electro Chemical Research Institute, Karaikudi

- With the guidance of the eminent scientists of this institution, research work on corrosion and electrochemistry has enabled the students and faculty to publish a number of papers in national and international journals.
- Grants for Minor and Major projects are also obtained for research work in this area.

### Consultancy and Extension:

- ♦ SHG women were trained in various horticulture techniques that has helped them to setup a nursery and earn their livelihood.
- The guidance from CECRI, IGCAR etc., has enabled the faculty to handle equipments such as Autolab., FTIR with ATR technique etc., so that recording and interpreting data concerning the impedance and polarization measurements, and the infra red spectra of thin films etc., could be carried out for consultancy services.

### Student Placement:

- ♦ In the past four years more than 600 students are placed in Cognizant Technology Solutions with the package ranging from 2-3 lakhs per annum.
- Many students are recruited in Tata Consultancy Services.

- About 250 students are benefitted by the coaching classes conducted for ACS, ICWA and CA courses.
- Projects such as Soil-less culture, Effect of biofertilisers on horticulture plants etc., done by the students in collaboration with Ramya Nursery has helped the students in getting placed in agri-based industries.
- 3.7.3 Does the College have MoUs nationally/Internationally and with institutions of national importance/other universities/industries/corporate houses etc.? If yes, explain how the MoUs have contributed in enhancing the quality and output of teaching-learning, research and development activities of the College?

### MoUs with Foreign Universities

1. University of Toledo, USA, (2006)

PGDBA Curriculum revamped - Enabling the students to pursue the second year degree at the PSG College of Technology so as to obtain the MBA Degree of Toledo University

- 2. Shanghai Jiao Tang University, Shanghai, People's Republic of China, (2007) To facilitate student and faculty exchange programmes and joint research
- 3. San Diego State University, USA, (2009)
  - i. To enable collaborative research
  - ii. Faculty exchange programme
  - iii. Semester Abroad' programme
- 4. Oregon State University, USA, (2013)
  - i. Semester Abroad programme
  - ii. Faculty exchange programme

### MOU with Foreign Universities helped in

- Revamping of curriculum
- Joint research programmes help in exchange of information and materials of mutual interest
- ♦ Development of transfer of technology
- Industrialization of institutional research & consultancy
- 3.7.4 Have the College industry interactions resulted in the establishment/creation of highly specialized laboratories/facilities?
- ♦ Interactions with industries such as Rasi Seeds, Kasiraj Herbals, SITARC, Chromous Biotech, CFTRI, Siddu-Agri Farms, Textile & Dyeing industries, Plastic industries, CLRI, CECRI etc.,



have enabled the departments to gain knowledge to modernize their labs with the latest equipments such as AAS, IR with ATR technique, potentiostat, HPLC, INSTROL-fibre testing unit etc. these facilities have enabled the department to function as full fledged research centres.

- ♦ Tie up with organizations such as British Council, Helen-O-Grady have helped in setting language labs to promote theatre arts and communication skills.
- A'Women Technology Park' is being established in the adopted village Pillaiyappanpalayam.