

**DBT STAR COLLEGE SCHEME  
PROGRESS REPORT 2016-2017  
Newly Inducted Departments**

Submitted to



सत्यमेव जयते

**Department of Biotechnology  
Ministry of Science and Technology  
Government of India**

By

**PSGR Krishnammal College for Women**  
*College of Excellence*



**nirf** - 14<sup>th</sup> Rank



An Autonomous College – Affiliated to Bharathiar University  
Reaccredited with 'A' grade by NAAC  
An ISO 9001:2008 Certified Institution  
Peelamedu, Coimbatore – 641004. Phone: 0422-4295959; Fax: 0422-4295888  
Website: [www.psrkc.ac.in](http://www.psrkc.ac.in)

**Newly Inducted Departments**  
**Computer Science, Information Technology**  
**and Computer Applications**

## **CONTENTS**

<b>S.No.</b>	<b>Title</b>	<b>Page No.</b>
<b>1</b>	Name of the College	<b>1</b>
<b>2</b>	Departments supported	<b>1</b>
<b>3</b>	List of courses	<b>1</b>
<b>4</b>	Admission in different courses	<b>2</b>
<b>5</b>	Department of Computer Science	<b>3</b>
<b>6</b>	Department of Information Technology	<b>10</b>
<b>7</b>	Department of Computer Applications	<b>17</b>

## **ANNEXURES**

Advisory Committee Members	<b>i</b>
List of Mentors	<b>v</b>
Advisory Committee Meeting Minutes	<b>viii</b>

## PROGRESS REPORT 2016 - 2017

### Newly Inducted Departments Computer Science, Information Technology and Computer Applications

1. **Name of the College** : PSGR Krishnammal College for Women, Coimbatore.

2. **Name of Departments supported** : Computer Science, Information Technology and Computer Applications

**Name of Coordinator, designation,**

**Address, phone nos.** : **Dr. M.S. Vijaya**

Associate Professor and Head,

Department of Computer Science

Ph. No. 0422- 2572222, 4295959 Fax: 2591255

Email: msvijaya@psgrkc.ac.in

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

Department	Courses Offered				
	UG	PG	MPhil	Ph.D	Job Oriented Course
<b>Computer Science</b>	B.Sc Comp. Science	M.Sc Comp. Science	Computer Science	Computer Science	Cloud Infrastructure and Services
<b>Information Technology</b>	BSc Info. Technology	MSc Info. Technology			ORACLE
<b>Computer Applications</b>	BCA				PHP / MYSQL

**4. Cut off percentage for admission in different courses in participating departments, positions in university, Percentage of result in 2015-16 academic session:**

<b>Department</b>	<b>Batch</b>	<b>Cut off % for admission</b>	<b>No. of Students Admitted</b>	<b>% of Result</b>	<b>Position in University</b>	<b>No. of Dropout Students</b>
<b>Computer Science</b>	2013-14	75%	120	100%	Autonomous & Affiliated to Bharathiar University	07
	2014-15	80%	120	100%		08
	2015-16	85%	120			02
	2016-17	85%	120			02
<b>Information Technology</b>	2013-14	75%	60	100%	Autonomous & Affiliated to Bharathiar University	00
	2014-15	80%	61	100%		03
	2015-16	85%	61			02
	2016-17	85%	120			02
<b>Computer Applications</b>	2013-14	75%	120	100%	Autonomous & Affiliated to Bharathiar University	04
	2014-15	80%	121	100%		03
	2015-16	85%	120			09
	2016-17	85%	120			04

## Department of Computer Science

### 5. Activities

#### A) Student Activities:

##### (i) Internship Projects:

P.Nithya shankari and R.Priyanka of II BSc Computer science underwent an internship in the following titles.

- Secondary Protein Structure Analysis
- Protein Sequences and Primary Structure Analysis

##### (ii) Industrial Visits:

S.No	Class	Place of visit	Date	No. of Beneficiaries	Justification
1	II B.Sc CS “A&B”	UPASI – Valparai	29.12.2016	20 students and 2 faculty	To motivate the students to take internship in Bioinformatics
2	III B.Sc CS ‘A’	Scigenom Labs Pvt. Limited, Kochi	11.10.2016 to 14.10.2016	50 students and 2 faculty	To motivate the students to take projects in Bioinformatics
3	III B.Sc CS ‘B’	Scigenom, Biotechnology Incubation Centre, Hyderabad	27.01.2017 to 31.01.2017	35 students and 2 faculty	To motivate the students to perform research in Bioinformatics

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

- Biological Sequence Analysis – Hem Hospital, Coimbatore.
- DNA Sequence Classification - Hem Hospital, Coimbatore.
- Protein Structure Analysis –Clinical Lab Solutions and Bioline Laboratory, Coimbatore.
- Gene Expression Analysis – Captosepharma Private Limited, Coimbatore.
- An Effective Analysis of Secondary Protein Structure Prediction – Health Plus Data Access Private Limited, Coimbatore.
- Automatic bone marrow white blood cell classification – Kovai Medical Centre and Hospital, Coimbatore.
- Pharmacy Automation System -Kovai Medical Centre and Hospital, Coimbatore.
- A Methodology for analysis of DNA structure Prediction – Star Health information System, Coimbatore.

## **B. Teacher Activities:**

### **(i) Seminars and workshops attended**

- **S. Karpagavalli and C. Arunpriya** attended DBT Sponsored National Seminar on **Data Science: Scope of Big Data in Genomic Sequencing and Diagnostic Imaging**, Kongu Engineering College, Erode on 19.03.2016.
- **Dr. M.S.Vijaya and Dr.S.C.Punitha** attended One day Symposium on **Genetics, Genomics, Proteomics: Applications in Clinical Research**, Ganga Medical Centre & Hospitals, Coimbatore on 22.08.2016.
- **A.S. Kavitha** attended DBT Sponsored National Seminar on **Machine Learning in Bioinformatics** by Department of Biotechnology, M. Kumarasamy College of Engineering, Karur from 09.12.2016 to 10.12.2016.
- **S. Karpagavalli** attended **Nobel Laureates Lecture** in Vibrant Gujarat 2017 on 10.01.2017.
- **J. Shalini** attended National Seminar on **Diabetes – Research and Remedies**, organized by Department of Biochemistry and Bioinformatics, Karpagam University from 27.01.2017 to 28.01.2017.
- **S. Karpagavalli and J. Viji Gripsy** attended Hands on Training on **Bioinformatics Tools (BioPerl and BioPython)** by **Dr. C. Sabarinath**, Professor, Department of Biotechnology, PSG College of Technology, Coimbatore on 01.09.2016.
- **J. Shalini and N. Deepa** attended One day Interdepartmental workshop on **Basics of Bioinformatics** at Department of Botany, PSGR Krishnammal College for Women, Coimbatore on 18.10.2016.
- **R.Kavitha and J.VijiGripsy** attended workshop on “**Detection of Bio Molecules and its Visualization**” at Bioinformatics lab, Karunya University on 28.01.2017.
- **N. Deepa** attended workshop on “**Vetinformatics**” by TamilNadu Veterinary and Animal Science University, Chennai from 06.03.2017 to 10.03.2017.

### **(ii) Workshops organized**

- **G.Varadharaju**, Research Associate, Department of Microbiology, Madurai Kamaraj University, Madurai conducted a workshop on Biological Databases and Tools on 06.9.2016. **15 faculty and 56 students** were benefited.
- **Dr. S. Poornima**, Retd. Professor, Department of Botany, PSGR Krishnammal College for Women, Coimbatore conducted a workshop on Biological Databases and Tools on 19.9.2016. **2 faculty and 56 students** were benefited.

### **(iii) Guest Lectures**

- **Dr.Suman Govil**, Scientific Officer, Department of Biotechnology and External Member, New Delhi delivered Inaugural address on 18.2.2016. **27 faculty and 300 students** of CS, IT and BCA were benefited.
- **Dr. T. Balasaravanan**, Assistant Professor, Department of Botany, Govt. Arts College, Ariyalur delivered a lecture on “Introduction to Bio-Molecules and Bio-informatics” on 21.3.2016.**13 faculty and 320 students** were benefited.
- **Dr.M.Jeyam**, Assistant Professor, Department of Biotechnology, Bharathiar University, Coimbatore Mentored the session on “DBT Mentor Meeting” on 10.8.2016.**20 faculty** were benefited.
- **Dr. P. Ponmurugan**, Associate Professor, Department of Botany, Bharathiar university, Coimbatore delivered a lecture, on “Role of Bioinformatics in Protein structure and prediction” on 12.12.2016. **15 faculty and 320 students** were benefited.
- **Dr. P.R. Padma**, Professor, Department of Biochemistry, Biotechnology and Bioinformatics, Avinashilingam Deemed University, Coimbatore delivered a lecture on “Sequence Alignment and Tools” on 31.1.2017.**13 faculty and 250 students** were benefited.

### **Lab manuals, SOPs prepared:**

- Lab manuals were prepared for I,II, III Year B.Sc. Computer Science students

### **6. Advisory committee meeting: - 18/2/2016**

### **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:**

#### **Techniques:**

Different techniques of Bioinformatics like Bioperl, R Programming, Biocomputing, Biopython and other open source tools like BLAST, NCBI, PubMed, UniProKB, etc. were introduced for improving the efficiency and skill of students to work on bioinformatics.

#### **Practicals (Lab Exercises)**

- Explore the sitemap of NCBI and PUBMED. Study the resources available on NCBI and PUBMED.
- Retrieve the Genbank entry with Specific accession number.



- Analyse and Retrieve and save only the coding sequence of the entry AF375082 in FASTA format.
- Analyse the NCBI web site and find the official gene symbol, its alias name, chromosome number, and its ID.
- Analyse and retrieve Protein sequences from protein database.
- Getting and analysis of primary protein structure.
- Secondary structure analysis of protein.
- Tertiary protein structure analysis using Rasmol.
- Pair-wise sequence alignment and multiple sequence alignment by using ClustalW.
- Pairwise and Multiple sequence alignment using BLAST.
- Align two sequences and find the PAM scoring matrix.
- Align two sequences and find the BLOSUM scoring matrix.
- Similarity search using the Blast and interpret the results.
- Convert the gene sequence into its corresponding amino acid sequence.

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

**Computer Science: 112 Vs 112 (8 students had taken Bioinformatics projects)**

- Biological sequence analysis – Hem Hospital, Coimbatore
- DNA Sequence classification - Hem Hospital, Coimbatore
- Visualizing Protein Structure – Clinical lab solutions and Bioline laboratory, Coimbatore
- Gene expression Analysis – Captose pharma private limited, Coimbatore
- An effective analysis of secondary protein structure prediction – Health plus data access private limited, Coimbatore
- Automatic bone marrow white blood cell classification – Kovai Medical Centre and Hospital, Coimbatore
- Pharmacy automation system -Kovai Medical Centre and Hospital, Coimbatore
- A methodology for analysis of DNA structure prediction – Star health information system, Coimbatore

## 9. Interdepartmental activities conducted:

- Interdepartmental Competitions **BioConnection** was organized to undergraduate science students of PSGRKCW on 22.12.2016. 50 students of **Physics, Chemistry, Mathematics, Botany, Zoology, Computer Science, Information Technology and Computer Applications** of PSGRKCW were benefited.
- FDP on **Bio Informatics in Life Science and Research** was organized by department of Computer science, Information technology and Computer applications on 09.02.2017 & 10.02.2017. 50 faculty from **Physics, Chemistry, Mathematics, Botany, Zoology, Computer Science, Information Technology and Computer Applications** of PSGRKCW and other institutions were benefited.
- Inter Collegiate Fete - **BIO TECHNOZARRE '17** was organized by department of Computer science, Information technology and Computer applications on 28.02.2017. 100 students from **Physics, Chemistry, Mathematics, Botany, Zoology, Computer Science, Information Technology and Computer Applications** in and around Coimbatore institutions participated and benefited.

## 10. Qualitative improvements due to DBT support

- Facilitated us with Bioinformatics laboratory to explore the biological databases and tools.
- Introduction of Bioinformatics Course and lab exercises in the curriculum created awareness on bioinformatics and its applications.
- It provided a platform for the students to understand bioinformatics basics and enabled them to carry out interdisciplinary projects.
- This scheme gave a chance to the students, to work with bioinformatics tool in addition to regular programming software.
- It offered an opportunity to the students to visit bioinformatics based industries and institutes to know the industry practices and job opportunities in the field.

## 11. Strengths and weaknesses of the department

### Strengths

1. Well-equipped laboratory with necessary tools
2. Students strength, qualified and experienced faculty
3. Team spirit among the faculty
4. Encourage students to apply computational skills in different fields

**Weakness:** - Nil

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

**13. DBT grants utilization:**

**A) Non- recurring (Equipment)**

**(Three departments, Rs. 5 Lakh per department – Rs.15 Lakhs)**

Equipments (Systems - 29)	-	Rs. 9, 91,890
Equipments (Printer -1, UPS -1)	-	Rs. 5, 13,410
UPS Cable	-	Rs. 8,600
Cable	-	Rs. 5,000
<b>Total</b>	<b>-</b>	<b>Rs. 15, 18, 900</b>

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

<b>S. No</b>	<b>Details</b>	<b>Amount in Rs</b>
1	Visiting Faculty	42,190/-
2	Group Project	22,500 /-
3	Industrial visits	48,700/-
5	Workshop	39,464 /-
6	Consumables	11,704 /-
7	Intercollegiate / FDP	10,000/-
8	Interdepartmental	2,000/-
9	Books & Journals	24,992/-
<b>Total</b>		<b>2,01,550 /-</b>

**Students Feedback:**

- The DBT Star Scheme Bioinformatics helped us to gain strong basics in biological databases and tools available to analyse the data.
- The visits to the laboratories in Scigenome, Hyderabad and Cochin, UPASI, Valparai and Karunya University, Coimbatore helped us to gain knowledge in Detection of Bio Molecules and its Visualization, DNA Sequencing and analysis.
- The 5 day workshop on Vetinformatics by Tamilnadu Veterinary and Animal Science University, Chennai provides an exposure to work with online biological tools
- The Inter departmental and Inter-collegiate “BioTechnozarre’17” events organized by the Department of Computer Science, Information Technology and

Computer Applications created an awareness on Bioinformatics terms, tools and applications.

**Faculty Feedback:**

- The DBT Star Scheme “Bioinformatics” helped the faculties of computer science to gain domain knowledge in the interdisciplinary subject.
- The interdisciplinary knowledge motivated the staff to prepare a laboratory manual “Bioinformatics for Beginners”.
- The Two day Faculty Development Programme “Bioinformatics in Life Science and Research” helped us to invite experts in the field of bioinformatics. The experts shared their knowledge in biological databases, tools and the importance of Computer science professionals in the research activity of bioinformatics.
- The Bioinformatics knowledge gained by the faculties enabled them to guide their students in internship and project work in the interdisciplinary subject.

**Future Plans:**

- To ensure placement opportunities and more industrial exposure for the students.
- Increased number of Interdisciplinary projects.

## Department of Information Technology

### 5. Activities

#### A) Student Activities:

##### i. Internship projects:

- V. Jeya haritha and P. Sangeetha of II B.Sc Information Technology attended the training programme at Integrated Coastal and Marine Area Management Project Directorate, Chennai during May- June 2016.

##### ii. Industrial Visit:

S.No	Class	Place of visit	Date	No. of Beneficiaries	Justification
1	B.Sc IT	Centre for Cellular and Molecular Biology, Hyderabad	6/10/2016	83 students and 3 faculty	To motivate the students to take up the research career
2	B.Sc IT	CBNR Academy of Life Sciences, Eachanari, Coimbatore	20/2/2017	80 students and 2 faculty	To motivate the students to undergo projects in bioinformatics

##### iii. List of projects taken by students

- Criminal Investigation using DNA Sequencing - SRJ Lab, Mettupalayam
- Gene Profile Analysis - Lancia Lab , Coimbatore.
- DNA Age Calculator - Lancia Lab, Coimbatore.
- Gene Based Drug Selection Technology - Lancia Lab, Coimbatore.
- Immuno Informatics - Lancia Lab, Coimbatore.
- Spatial Temporal Mapping Of Trees in the field of Bioinformatics - NIOT(National Institute of Bioinformatics) ,Integrated Coastal and Marine Area Management (ICMAM), Ministry of Earth Sciences, Chennai
- Identifying the disease using DNA Sequence -Re-Vijay Clinical Lab, Coimbatore
- Gene Ranking for Cancer Detection - VG Hospital, Mettupalayam
- Up and Down blood pressure control tactics –Red Cell Blood Bank, Coimbatore.
- Tumour Detection Using Dark Circle - Re-Vijay Clinical Lab, Coimbatore.
- Identifying the disease using DNA Sequence -Re-Vijay Clinical Lab, Coimbatore.
- Bioinformatics Tactics for Protein Improvement - Bioinformatics Lab, Coimbatore.

- ECG Data Summarization with Disease -VG Hospital, Mettupalyam.

## **B. Teacher Activities:**

### **(i) Seminars and Workshops attended**

- **Mrs. K.Sathiyakumari** and **Mrs.R.Amsaveni** attended National Level Seminar on “Data Science: Scope of Big Data in Genomic Sequencing and Diagnostic Imaging” at Kongu Engineering College, Erode on 19/3/2017.
- **Mrs. A.Sindhu** attended the “National Seminar on Diabetes – Research and Remedies Dept of biochemistry and bioinformatics, Karpagam University, Coimbatore on 27<sup>th</sup> & 28<sup>th</sup> January 2017.
- **Mrs. R.Amsaveni** and **Mrs.A.Sindhu** attended the “Workshop on Basics of Bioinformatics”, organized by Department of Botany, PSGR Krishnammal College for Women on 18/10/2016.
- **Mrs. R.Amsaveni** and **Mrs. K.Sathiyakumari** attended the “Tools in Bioinformatics” at CBNR , Coimbatore on 20/2/2017.

### **(ii) Workshops organized**

- **Training for the Faculty and Lab Assistant** - “Bioinformatics Databases And Tool” On 1/9/2017 by Dr. C.Sabarinath, Associate Professor, Department of Biotechnology, PSG College of Technology, Coimbatore. – **21 members were benefitted.**
- **Faculty Development Programme** on “Bioinformatics in Life Science and Research” on 9<sup>th</sup> & 10<sup>th</sup> January 2017. “DataMining in Bioinformatics” by Dr. C.Sabarinath, Associate professor, Department of Biotechnology, PSG College of Technology, Coimbatore. **Machine Learning Approaches in Bioinformatics** by Dr. Puniethaa Prabhu, Professor, Department of Biotechnology, KSRangasamy College Of Technology, Erode.
- **Workshop on “BioPython and R Programming”** by Mayukha Selvaraj, Maylancer Techios on 21<sup>st</sup> February 2017. **60 students and 1 faculty were benefitted.**
- **Workshop on “BioPerl”** by Mr.Ramkumar, LitzTech India Pvt Ltd on 3/3/2017. **60 students and 1 faculty were benefitted.**
- **Inter – Collegiate Technical Fete ”BIOTECHNOZARRE – 2017”** organized by the Department of Information Technology, Computer Science, Computer Applications on 28/2/2017. **100 Students from Outside colleges participated.**

### **(iii) Guest Lectures**

- **Dr.(Mr).K. Mani**, Retired Professor ,Department of Botany, PSGCAS , **Dr.(Mrs). N. S. Malathi**, Retired Professor, Department of Botany, PSGR Krishnammal College for Women delivered the Lecture on “Introduction to Bioinformatics” on 17/3/2016. **250 students and 18 faculty were benefitted.**

- **Dr. Selvi Subramanian**, Professor, Department of Biotechnology, PSG College of Technology Mentored the session on 17/8/2016. **19 faculty attended the meeting and benefitted.**
- **Dr.M.Raveendran, Professor**, Department of Plant Bio Technology, Tamilnadu Agricultural University, Coimbatore delivered the Lecture on “Applications of Bioinformatics In Biotech Research” on 27/8/ 2016. **250 students and 18 faculty were benefitted.**
- **Ms.Mayukha Selvaraj**, CEO, Malancer Techios delivered the Lecture on the topic “Introduction to Bio-Python” on 14/10/2017. **60 students and 9 faculty were benefitted.**
- **Dr.V.Vijayakumar**, Controller of Examinations, Professor, Department of Computer Science, SNR & Sons College delivered the Lecture on “Introduction to R Programming” on 9/1/2017. **240 students and 9 faculty** were benefitted.

#### **Lab Manuals, SOPs prepared:**

- Lab Manuals were prepared for I, II and III year BSc Information Technology students

#### **6. Advisory committee meeting: 18/2/2016**

#### **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:**

#### **Techniques:**

Different techniques of Bioinformatics like Bioperl, R Programming, Biocomputing, Biopython and other open source tools like BLAST, NCBI, PubMed, UniProKB, etc. were introduced for improving the efficiency and skill of students to work on bioinformatics.

#### **Practicals(Lab Exercises)**

- DNA sequence - length, base composition and GC content.
- Split a DNA sequence into codons.
- Start and stop codons in a DNA sequence.
- Write a script to Import data from Genbank using Bioperl.
- Write a script to extract all the features from a GenBank file using Bio::Seq in Bioperl.
- Concatenating DNA Fragments Transcription: DNA to RNA using Bioperl.
- Write a script to use sequence features to compare sequences and find mutation using Bioperl.
- Program to retrieve sequences from fasta and genbank files using BioPython.
- Write a program to split a sequence file into a set of smaller files, each containing a subset of original file's sequences using BioPython.
- Write a program to convert between sequence file formats using BioPython.

- Write a program to do manipulations in sequence files such as reading sequence files, Iterating records over another, listing the records and extracting data using BioPython.
- Write a program to retrieve genome sequence data via the NCBI website using seqnr package and write it as a FASTA file.
- Write a shell script to search and retrieve sequences and MEDLINE references using ENTREZ database.
- Write a shell script to use find the name of the input sequence using grep command and the top hit from a BLAST output file without viewing it directly.
- Write a program to analyse and visualize graph for protein interaction data.

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

**Information Technology 58 Vs 58 (13 students had taken Bioinformatics based projects)**

- Criminal Investigation using DNA Sequencing - SRJ Lab, Mettupalayam.
- Gene Profile Analysis - Lancia Lab, Coimbatore.
- DNA Age Calculator - Lancia Lab, Coimbatore.
- Gene Based Drug Selection Technology - Lancia Lab, Coimbatore.
- Immuno Informatics - Lancia Lab, Coimbatore.
- Spatial Temporal Mapping Of Trees in the field of Bioinformatics -NIOT(National Institute of Bioinformatics) ,Integrated Costal and Marine Area Management (ICMAM), Ministry of Earth Sciences, Chennai.
- Identifying the disease using DNA Sequence -Re-Vijay Clinical Lab, Coimbatore.
- Gene Ranking for Cancer Detection - VG Hospital, Mettupalayam.
- Up and Down blood pressure control tactics –Red Cell Blood Bank, Coimbatore.
- Tumour Detection Using Dark Circle - Re-Vijay Clinical Lab, Coimbatore.
- Identifying the disease using DNA Sequence - Re-Vijay Clinical Lab, Coimbatore.
- Bioinformatics Tactics for Protein Improvement - Bioinformatics Lab, Coimbatore.
- ECG Data Summarization with Disease -VG Hospital, Mettupalayam.

**9. Interdepartmental activities conducted:**

- Group projects were carried out in collaboration with Department of Botany.
- Faculty from CS, IT, BCA, Botany and Zoology and lab technicians (**21 members**) attended the **Training for the Faculty and Lab Assistant** on “Bioinformatics Databases and Tool” organized by the Department of Information Technology on



27/8/2016. Dr. C.Sabarinath, Associate Professor, Department of Biotechnology, PSG College of Technology, Coimbatore handled the session.

- **Interdepartmental Competition “BIFOTECH”** organized by the Department of Information Technology on 28/12/2016. **90 students** from various department participated in this competition which consist of four rounds.
- FDP on **Bio Informatics in Life Science and Research** was organized by department of Computer science, Information technology and Computer applications on 09.02.2017 & 10.02.2017. **50 faculty from Physics, Chemistry, Maths, Botany, Zoology, Computer Science, Information Technology and Computer Applications of PSGRKCW and other institutions were benefitted.**
- Inter Collegiate Fete - **BIO TECHNOZARRE '17** was organized by department of Computer science, Information technology and Computer applications on 28.02.2017. **100 students from in and around Coimbatore institutions were participated and benefitted.**

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

- Students and faculty members gained the Biological Domain knowledge through Guest Lectures, FDP, Training
- Programming skills in handling biological data's has been improved through Workshops
- As a result of Industrial Exposure, more placement opportunities through Industrial visits, Workshops
- Increased the research interest in Bioinformatics through FDP, Project works
- Increased number of projects and internship in Bioinformatics.

#### **11. Strengths and weaknesses of the department**

##### **Strengths**

1. Students strength and Qualified, experienced faculty & team spirit among the faculty
2. Well-equipped laboratory with necessary tools
3. Effective teaching and practice oriented learning enables the students to apply information technology in real world problems

**Weakness:** - Nil

#### **12. Problems faced, if any, in implementation of the programme and utilization of DBT grant : - Nil-**

### 13. DBT grants utilization:

A) Non-Recurring (Equipment) – Refer item 13 (A) in Computer Science Department

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

S. No	Details	Amount in Rs
1	Visiting Faculty	34,691/-
2	Group Project	22,000 /-
3	Industrial visits	58,664/-
4	Internship	2,000/-
5	Workshop	39,150/-
6	Consumables	10,028 /-
7	Intercollegiate / FDP	9,594/-
8	Interdepartmental	4,029/-
9	Books & Journals	24,994/-
<b>Total</b>		<b>2,05,150 /-</b>

#### Students Feedback:

- DBT star college scheme has developed the quality of teaching, learning through the system environment. It has been achieved for the growth of student's knowledge to develop their skill sets.
- The financial assistance from DBT made to visit Centre for Cellular and Molecular Biology, Hyderabad, Integrated coastal and Marine Area Management Project Directorate, Chennai and CBNR Academy of Life Sciences, Eachanari, Coimbatore.
- Interdisciplinary approach in projects helped the students to utilize the growth for the future researches. Overall the financial support has enabled to get a thorough knowledge in various aspects of Bioinformatics and related fields which would help them to get placed in reputed industries and also for higher studies.
- The workshop on Introduction to Bioinformatics and Biological Database, Basics of Bioinformatics made students to get ideas and approaches towards Bioinformatics.

#### Faculty Feedback:

- The workshops and training program attended by the faculty under the DBT star college schemes have enriched their interdisciplinary subject knowledge. The faculty

had an opportunity to interact with the experts in different fields of Bioinformatics. This enabled their teaching to be more effective thus motivating the students to take up projects and internship in Bioinformatics.

- Two Days FDP on "Bioinformatics in Life Science & Research" made faculty to develop their knowledge on Bioinformatics and kindles the research interest in Bioinformatics.

**Future Plans:**

- To develop more number of research activities in bioinformatics.
- To ensure placement opportunities and more industrial exposure for the students.
- Increased number of Interdisciplinary projects.

## Department of Computer Applications

### 5. Activities

#### A) Student Activities:

##### (i) Internship Projects:

- M. Dharani, of III BCA, attended the training program on Laboratory Information Management System and Analysis during May – June 2016 at Quality Care Diagnostic Centre, Dindigul.
- S.M.Divya Tharaa, of III BCA, attended the training program on Laboratory Test on Biochemistry during May – June 2016 at Subarasi Clinical Lab, Karur.
- V. Kaviya, of III BCA, attended the training program on Analysis of Diagnostic Laboratory during May – June 2016 at Alfa Diagnostics Centre, Dharmapuri.
- R. Sasikala, of III BCA, attended the training program on Theoretical and Evaluation Laboratory, during May – June 2016 at Alfa Diagnostics Centre, Dharmapuri.

##### (ii) Industrial Visits:

S.No	Class	Place of visit	Date	No. of Beneficiaries	Justification
1	BCA	Centre for Bioscience and Nano Science Research, Eachanari, Coimbatore	15.12.2016	60 students and 2 faculty	To motivate the students to take up the research career.

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

- Medical Lab Data Analysis System -Quality Care Diagnostic Centre – Dindigul.
- Digitization of Herbarium -Botany Department – PSGR Krishnammal College for Women.
- Agro Advisory System -EID Patry India Limited, Karur.
- Digitization of Herbarium -Botany Department – PSGR Krishnammal College for Women.
- Web Based Lab Information Portal -Apollo Hospital – Karur.
- Ontology Using Dynamic Linking -KG Hospital – Karur.
- Digitization of Herbarium -Botany Department – PSGR Krishnammal College for Women.

- Laboratory Testing Report Enhanced Online -Kovai Diagnostic Laboratory – Dharapuram.
- Integrated Diabetic Application- Asian Diagnostic Lab – Coimbatore.
- Adverse Drug Reaction Analysis System - Suba Hospital – Dharmapuri.
- Heart Disease Classification and Subtype Detection System - VG Hospital, Mettupalayam.
- Laboratory Report Automation System - Kalpana Microbiological lab – Tiruchengode.
- Digital Floral Studies - Botany Department – PSGR Krishnammal College for Women. (3 students).
- BMI – Android Application -InfoTech – Coimbatore.
- Tumor Detection using Dark block Extraction-Revijay Clinical Laboratories, Coimbatore.
- Interactive Voice Response System for Clinical Data Enquiry -Kovai diabetics Centre, Coimbatore.

## **B. Teacher Activities:**

### **(i) Seminars and Workshops attended**

- **M.Selvanayaki**, attended DBT Sponsored National Level Seminar on “**Data Science: Scope of Big Data in Genomic Sequencing and Diagnostic Imaging**”, Kongu Engineering College, Erode on 19.03.2016.
- **G.Sangeetha, K.Sathiya**, attended the “**Webinar on Higher Education**” on 10.01.2017 in PSGR Krishnammal College for Women, Coimbatore.
- **A.Kavitha**, attended Two Days National Seminar on “**Diabetes and Research**”, Karpagam University, Coimbatore on 27- 28, January 2017.
- **M.Selvanayaki, T.S.Anushya Devi**, attended the Two day’s workshop on “**Tools in Bioinformatics - CBNR Academy of Life Sciences**”, Eachanari, Coimbatore on 23.11.2016 & 24.11.2016.
- **A.Kavitha, G.Sangeetha**, attended the “**Workshop on Basics of Bioinformatics**”, organized by Department of Botany, PSGR Krishnammal College for Women on 18/10/2016.
- **K.Geethalakshmi, S.Mohanapriya, M.Selvanayaki, T.S.AnushyaDevi**, attended the “**Hands on Training on Bioinformatics Tools**” by **Dr. C. Sabarinath**,

Professor, Department of Biotechnology, PSG College of Technology, Coimbatore on 01.09.2016 at PSGR Krishnammal College for Women, Coimbatore.

**(ii) Workshops Organized:**

- Workshop on **Introduction to Biological - Dr.Muruges Eswaran**, Research Associate, Department of Bioinformatics, Bharathiar University, Coimbatore on 17.03.2016. **320 students and 20 faculty benefited.**
- One day workshop on **BIOPERL - Litz Tech Pvt Ltd India**, Coimbatore on 09.01.2017, **60 students and 2 faculty benefited.**

**(iii) Guest Lectures**

- **Dr.R.SubashKumar**, Professor & Head, Department of Biotechnology, Kongunadu Arts & Science College, Coimbatore mentored the session on 18.08.2016, **19 faculty benefited.**
- **Dr.S.F. Maleeka Begum**, Professor & Head, Department of Biotechnology, Sri Krishna Arts & Science College, Coimbatore delivered the lecture **Biological Databases and Tools** on 12.09.2016. **150 students and 9 faculty benefited.**
- **Dr.N.Santhi**, Assistant Professor, Department of Biochemistry, Avinashilingam University, Coimbatore delivered the lecture on Guest Lecture on **Biological Databases** on 13.03.2017. **150 students and 9 faculty attended and benefited.**

**Lab Manuals, SOPs prepared:**

- Lab manuals were prepared for I, II & III year Computer Applications Students.

**6. Advisory committee meeting: - 18/2/2016**

**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:**

**Techniques:**

New technique is introduced like Bioperl and open source tools like BLAST, NCBI, PubMed, UniProKB, etc. for improving the efficiency and skill of students to work on bioinformatics.

**Practicals (Lab Exercises)**

- To Count the number of nucleotides in a DNA Sequence.
- To split the sequence in to Codons.
- To align the sequence using local BLAST.
- To calculating the reverse complement of DNA sequence.

- To concatenating DNA Fragments Transcription: DNA to RNA.
- To compute total and average length of the proteins in these files.
- To run PSI-BLAST.
- A program to simulate DNA Mutation.
- To store a Protein sequence.
- To store a DNA sequence.
- To Load sequence from a remote server.
- Reading Protein sequence from Files.
- DNA Sequence Generation.
- Protein Sequence Generation.
- Write a script to search for genes from Genscan.

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

**Computer Applications: 118 Vs 118 (13 students had taken Bioinformatics based projects)**

- Medical Lab Data Analysis System-Quality Care Diagnostic Centre – Dindigul.
- Digitization of Herbarium (**Interdepartmental with Botany**) - Botany Department – PSGR Krishnammal College for Women.
- Agro Advisory System - EID Patry India Limited - Karur.
- Web Based Lab Information Portal- Apollo Hospital – Karur.
- Ontology Using Dynamic Linking - KG Hospital – Karur.
- Laboratory Testing Report Enhanced Online-Kovai Diagnostic Laboratory – Dharapuram.
- Integrated Diabetic Application- Asian Diagnostic Lab – Coimbatore.
- Adverse Drug Reaction Analysis System- Suba Hospital – Dharmapuri.
- Heart Disease Classification and Subtype Detection System- VG Hospital – Mettupalayam.
- Laboratory Report Automation System -Kalpana Microbiological lab – Tiruchengode.
- Digital Floral Studies (**Interdepartmental with Botany**) - Botany Department – PSGR Krishnammal College for Women.
- BMI – Android Application -InfoTech – Coimbatore.
- Tumor Detection using Dark block Extraction -Revijay Clinical Laboratories.
- Interactive Voice Response System for Clinical Data Enquiry -Kovai diabetics Centre.

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

- **Group projects** were carried out in collaboration with Department of **Botany**.
- **Interdepartmental Competition “Brain Hackers”** organized on 17/08/2016 for all science department students. 60 students from various department participated and benefitted.
- FDP on **Bio Informatics in Life Science and Research** was organized by department of Computer Science, Information Technology and Computer Applications on 09.02.2017 & 10.02.2017. **50 faculty from Physics, Chemistry, Mathematics, Botany, Zoology, Computer Science, Information Technology and Computer Applications of PSGRKCW and other institutions were benefitted.**
- Inter Collegiate Fete - **BIO TECHNOZARRE '17** was organized by department of Computer Science, Information Technology and Computer Applications on 28.02.2017. **100 students from in and around Coimbatore institutions were participated and benefitted.**

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

- Students and faculty members gained the Research Knowledge in Life sciences.
- It provides a clear learning process for new colleagues and interns with programming in life science.
- It facilitates the use of primary data sources.
- Exposure in the field of Bioinformatics is increased for doing projects.
- Programming Skills in handling biological Datasets has been improved.

## **11. Strengths and weaknesses of the department**

### **Strengths**

1. Well-equipped laboratory with necessary tools
2. Qualified, experienced faculty and Team spirit among the faculty
3. Engage students in learning different computer applications and develop effective Applications in different domains

**Weakness:** - Nil

## **12. Problems faced, if any, in implementation of the programme and utilization of DBT grant : - Nil**



### 13. DBT grants utilization:

A) Non-Recurring (Equipment) – Refer item 13 (A) in Computer Science Department

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

S. No	Details	Amount in Rs
1	Visiting Faculty	30,180 /-
2	Group Project	15,000 /-
3	Industrial visits	47,930 /-
4	Internship Training	10,000 /-
5	Workshop	43,600 /-
6	Consumables	13,348 /-
7	Intercollegiate / FDP	10,003/-
8	Interdepartmental	5,074/-
9	Books & Journals	24,971/-
<b>Total</b>		<b>2,00,106 /-</b>

#### Students Feedback:

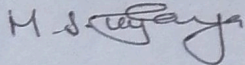
- The bioinformatics is a branch of science that is rapidly gaining high importance in this era.
- The support provided by the DBT is providing a huge opportunity for the students.
- The workshops and training helped the students to gain knowledge and increase their experience.
- The financial support provided by DBT helped us to complete our project successfully.

#### Faculty Feedback:

- The training programmes and workshops attended by the faculty under Star College Scheme helped to enrich the subject knowledge.
- The faculty development programs and guest lectures helped the faculties to improve their research activities towards life science.
- It also enhances the small research projects, expert lectures, visits and training programmes in an interdisciplinary approach.

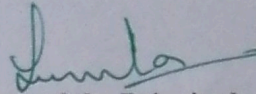
**Future Plans:**

- To make the department the most sought after for research.
- To ensure placement and opportunities abroad for the students.



**Signature of the Co-ordinator**

**Dr. M. S. VIJAYA, M.Sc.,M.Phil.,Ph.D.**  
Associate Professor and Head  
Department of Computer Science (PG)  
P.S.G.R. Krishnammal College for Women  
COIMBATORE - 641 004.



**Signature of the Principal**

**PRINCIPAL**  
PSGR KRISHNAMMAL COLLEGE FOR WOMEN  
COIMBATORE - 641 004.

## INAUGURATION OF NEWLY INDUCTED DEPARTMENTS



## Department of Computer Science



## Department of Computer Science

### Industrial Visit

#### Scigenom Labs Pvt. Limited, Kochi



#### UPASI – Valparai



#### SCIGENOM, BIOTECHNOLOGY CENTRE, HYDERABAD

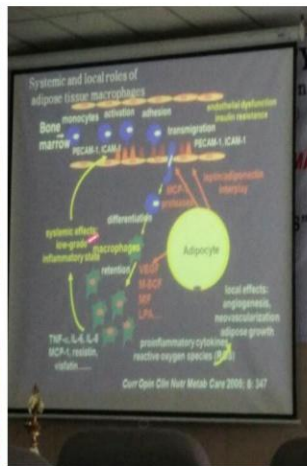


## Department of Computer Science

**INTERDEPARTMENTAL COMPETITION**



**Workshop IN Tamilnadu Veterinary And Animal Science University**



**STUDENT PARTICIPATION IN SEMINAR**



**WORKSHOP IN KARUNYA**

**DEPARTMENT OF INFORMATION TECHNOLOGY**



**Dr. K. Mani**



**Dr. (Mrs). N. S. Malathi**



**Dr. M. Raveendran,**

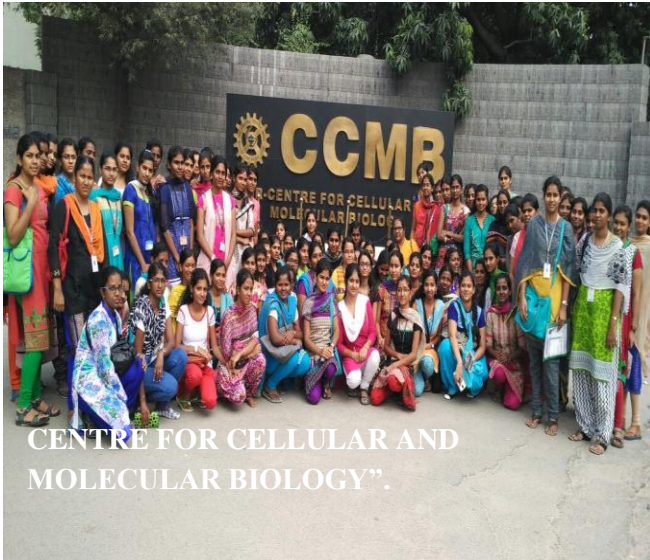


**Dr. V. Vijayakumar,**

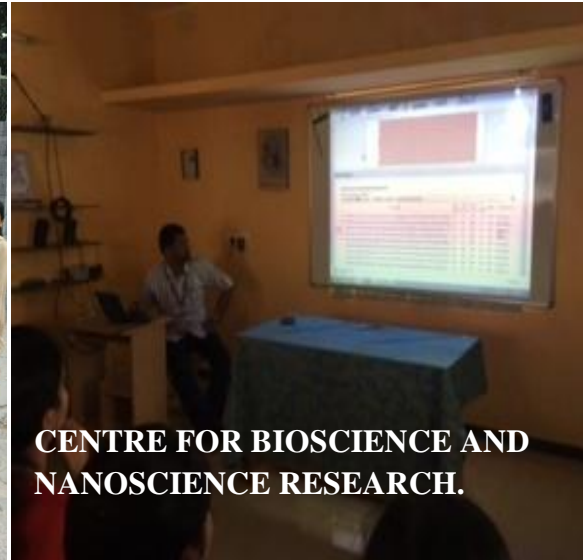


**Dr. Selvi Subramanian**

**DEPARTMENT OF INFORMATION TECHNOLOGY  
INDUSTRIAL VISITS**



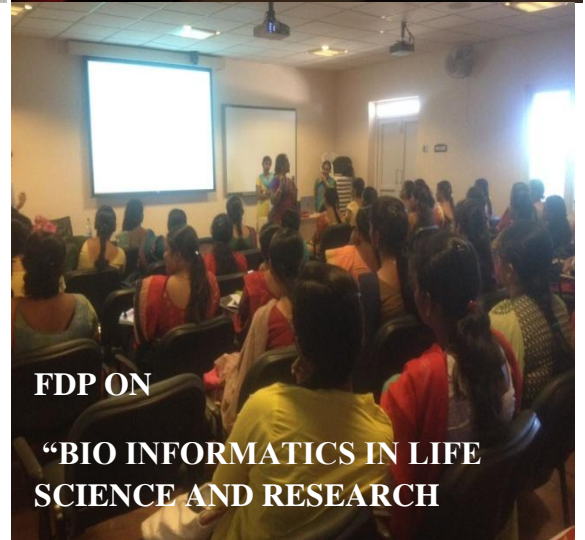
**CENTRE FOR CELLULAR AND  
MOLECULAR BIOLOGY”.**



**CENTRE FOR BIOSCIENCE AND  
NANOSCIENCE RESEARCH.**



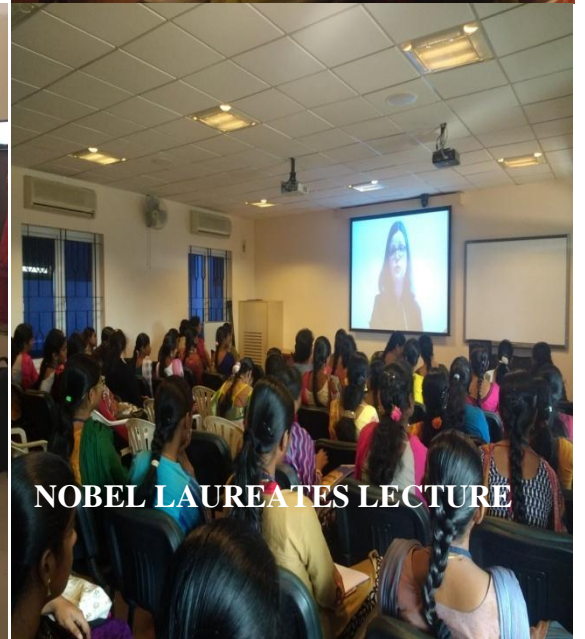
**INTERDEPARTMENTAL COMPETITION-  
“BIFOTECH”**



**FDP ON  
“BIO INFORMATICS IN LIFE  
SCIENCE AND RESEARCH**



**INTER -  
COLLEGIATE FETE BIOTECHNOZARRE**



**NOBEL LAUREATES LECTURE**



**DEPARTMENT OF INFORMATION TECHNOLOGY**



**NATIONAL SEMINAR ON DIABETICS RESEARCH AND REMEDIE**

**TRAINING AND WORKSHOPS**



**TRAINING FOR THE FACULTY AND  
LAB ASSISTANT**



**WORKSHOP ATTENDED - BASICS  
OF BIOINFORMATICS**



**WORKSHOP ON  
'BIOPERL**



**WORKSHOP ON BIOPYTHON AND  
R PROGRAMMING**

## Department of Computer Applications

### Workshop on Introduction to Bioinformatics and Biological Databases



### Mentor Meeting



### Introduction to Biological Databases and Tools



## Department of Computer Applications

CBNR Academy of Life Sciences, Eachanari



Workshop on “BIOPERL”



Two day National Seminar on “Diabetes Research and Remedies”



## Department of Computer Applications



## BIO TECHNOZARRE '17 Intercollegiate Fete



## Advisory Committee Members

### Chairman (Principal)

**Dr (Mrs) S Nirmala** MBA, MPhil, PhD  
Principal, PSGR Krishnammal College for Women  
Ph. (Off) +91 422 4295959, Mobile: +91- 9865181515  
E- mail: principal@psgrkc.com

### Member

(DBT Representative(s)/DBT Nominee)  
**Dr. Suman Govil**  
Adviser, HRD Division  
Department of Biotechnology  
(Ministry of Science & Technology)  
6th Floor, Room No. 606  
Block-2, CGO Complex, Lodi Road  
New Delhi-110003  
Telefax : 011-24369610  
Email : suman@dbt.nic.in

### Members

#### External Experts (3)

- **Dr R Rajendran MSc., PGDEM.,MBA.,PhD**  
Associate Professor, Department of Microbiology  
PSG College of Arts & Science  
Civil Aerodrome (post), Coimbatore – 641 014, Tamilnadu, India  
Phone: (Off) 0422-4397901 to 905, Mobile: +91- 9443751400  
E-mail: rrajendranmicro@yahoo.co.in
- **Dr.D.Mangalaraj M.Sc., Ph.D**  
Retd. 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
- **Dr. P. Shanmugavel**  
Managing Director / Coordinator  
BTISNET  
Associate Professor  
Department of BioInformatics  
Bharathiar University  
Coimbatore – 641 046  
E-mail: shanvel\_99@yahoo.com  
Mobile. No: 94864 46101

**Faculty Members (from all Participating departments) Coordinators from each supported Department (from all Participating departments)**

Mrs. S. Vasandha, M.Sc., M.Phil., – Dean, Student Affairs (Former Head of the Department, Botany)

- Mrs. M. Lavanya, M.Sc., M.Phil., – Assistant Professor, Department of Physics
- Ms. E. Kayalvizhy, M.Sc., M.Phil., – Assistant Professor, Department of Chemistry
- Dr. (Mrs.) B. Chitra Devi, M.Sc., M.Phil., Ph.D. - Assistant Professor, Department of Botany
- Dr. (Mrs.) P.B. Harathi, M.Sc., M.Phil., Ph.D., – Assistant Professor, Department of Zoology
- Dr. (Mrs) D. Sasikala, M.Sc., M.Phil., PGDCA., Ph.D., – Assistant Professor, Department of Mathematics
- Dr.(Mrs).S.C Punitha M.Sc, M.Phil.,MFT., Head & Assistant Professor- Department of Computer Science
- Mrs.G.Sophia Reena MCA., M.Phil., Head & Assistant Professor- Department of Information Technology
- Mrs.K.Geethalakshmi,MCA.,M.Phil.,B.Ed, Head & Assistant Professor- Department of Computer Applications

**Department of Physics**

- Dr. P. Meena, MSc., MPhil, PhD, Associate Professor
- Dr. J. Balavijayalakshmi, MSc., MPhil, PhD, M.Sc., M.Phil (CS), Assistant Professor
- Mrs. M. Lavanya, M.Sc., M.Phil., Assistant Professor
- Mrs. N. Priyadharsini, M.Sc., M.Phil., Assistant Professor
- Dr. G. Praveena, M.Sc., M.Phil.,PhD., Assistant Professor
- Mrs. C. Sharmila, M.Sc., M.Phil., Assistant Professor
- Mrs. S. Subanya, M.Sc., M.Phil., Assistant Professor
- Mrs. T.Poongodi, M.Sc., M.Phil., Assistant Professor
- Dr.S. Shanmuga Sundari, M.Sc., M.Phil.,PhD., Assistant Professor
- Miss. R. Kasthuri, M.Sc., M.Phil., Assistant Professor
- Mrs. D. Nivedhita, M.Sc., M.Phil., Assistant Professor
- Dr. S. Poongodi, M.Sc., M.Phil., PhD., Assistant Professor
- Miss. A. Ponpoorani, M.Sc., M.Phil., Assistant Professor

**Department of Chemistry**

- Dr. Subramanian Chitra, M.Sc., M.Phil., Ph.D., Associate Professor
- Dr. D. Nalini, M.Sc., M.Phil., Ph.D., Assistant Professor
- Ms. E. Kayalvizhy, M.Sc., M.Phil., Assistant Professor
- Mrs. P. Kanchana, M.Sc., M.Phil., Assistant Professor
- Dr N. Muthulakshmi Andal, M.Sc., Ph.D., Assistant Professor
- Dr. G. Selvi, M.Sc., M.Phil., Ph.D., Assistant Professor
- Mrs. V. Hemapriya, M.Sc., M.Phil., Assistant Professor
- Mrs. N. Shyamaladevi, M.Sc., M.Phil., Assistant Professor
- Dr.N.Aruna Devi,M.Sc., M.Phil, Ph.D., Assistant Professor
- Dr.Jone Kirubavathy, M.Sc., M.Phil, Ph.D., Assistant Professor
- Mrs.F.TheresaRani,M.Sc., M.Phil., Assistant Professor
- Mrs. K. Kalaiselvi,M.Sc., M.Phil.,Assistant Professor
- Ms. G. Sathya Priyadarshini, M.Sc., M.Phil., Assistant Professor
- Dr. P. Amutha, M.Sc., Ph.D., Assistant Professor

- Dr. A.Kiruthika, M.Sc., M.Phil, Ph.D., Assistant Professor
- Mrs.Sowmya Ramkumar, M.Sc., M.Phil., Assistant Professor

### **Department of Botany**

- Dr.(Mrs.) S.N. Padma Devi, M.Sc., M.Phil.,B.Ed., Ph.D. – Head & Associate Professor
- Dr.(Mrs.) C.Krishnaveni, M.Sc., M.Phil.,B.Ed., Ph.D. – Associate Professor
- Dr.(Ms.) M.Kalamam, M.Sc., M.Phil., Ph.D. – Associate Professor
- Dr.(Mrs.) K.Gajalakshmi, M.Sc., M.Phil., Ph.D. -Assistant Professor
- Dr.(Mrs.) M.Kanchana, M.Sc., M.Phil., Ph.D.,PGDBI.,PGDCA. -Assistant Professor
- Dr.(Mrs.) K.S.Tamilselvi, M.Sc., M.Phil., Ph.D. -Assistant Professor
- Dr.(Mrs.) H. Rehana Banu, M.Sc., M.Phil., Ph.D. -Assistant Professor
- Dr.(Mrs.)B.Chitra Devi, M.Sc., M.Phil., Ph.D. - Assistant Professor
- Dr.(Mrs.) R.Sumathi, M.Sc., M.Phil., Ph.D.,B.Ed. -Assistant Professor
- Dr.(Mrs.) E. Uma, M.Sc., M.Phil., PGDBI., Ph.D. -Assistant Professor
- Dr.(Mrs.) S. Nithya Meenakshi, M.Sc., M.Phil., Ph.D. -Assistant Professor

### **Department of Zoology**

- Dr. N. Ezhili, M.Sc., M.Phil, B.Ed., Ph.D, Associate Professor and Head
- Dr. P.B. Harathi, M.Sc., M.Phil, Ph.D Assistant Professor
- Mrs. P. Susheela, M.Sc., M.Phil., Assistant Professor
- Dr. G. Sasikala, M.Sc., M.Phil., Ph.D., Assistant Professor
- Dr. M. Sheeba, M.Sc., M.Phil.,Ph.D., Assistant Professor

### **Department of Mathematics**

- Dr. (Mrs) Tamilselvi. B, M.Sc., M.Phil., Ph.D., Associate Professor and HOD
- Ms. Karpagam. A, M.Sc., D.C.P. Associate Professor
- Dr. (Mrs) Sumathi. K, M.Sc., M.Phil., Ph.D., PGDCA, Associate Professor
- Dr. (Ms) Sasikala. D, M.Sc., M.Phil., Ph.D., PGDCA, Assistant Professor
- Dr. (Ms) Arthi. G, M.Sc., M.Phil., Ph.D., Assistant Professor
- Dr. (Ms) Lakshmi. R, M.Sc., M.Phil., Ph.D., PGDCA, Assistant Professor

### **Department of Computer Science**

- Dr. (Mrs.)M.S. Vijaya, M.Sc,M.Phil, Ph.D. – Associate Professor
- Dr. (Mrs.) S.C. Punitha, M.Sc.,M.Phil, MFT, Ph.D, – Associate Professor
- Dr. R. Kavitha, M.Sc, M.Phil., Ph.D. –Assistant Professor
- Mrs. A.S. Kavitha . M.Sc., M.Phil., –Assistant Professor
- Mrs. V. Premsudha, MCA.,M.Phil,(Ph.D) . –Assistant Professor
- Mrs. R. Jayasree, MCA., M.Phil.,(Ph.D) . –Assistant Professor
- Mrs. N. Deepa, M.Sc., M.Phil.,(Ph.D) –Assistant Professor
- Mrs. V. Santhanalakshmi, M.Sc., M.Phil., –Assistant Professor
- Mrs. J. Shalini, M.Sc., M.Phil.,(Ph.D) –Assistant Professor
- Mrs. N.A. Sheela Selvakumari, M.Sc., M.Phil.,(Ph.D) –Assistant Professor
- Mrs. S. Kiruthika Devi, MCA.,(Ph.D) . –Assistant Professor
- Mrs. V. Kalaimani, MCA., M.E., M.Phil.,(Ph.D) –Assistant Professor
- Mrs. R. Kowsalya, MCA, M.Phil.,(Ph.D) . –Assistant Professor

### **Department of Information Technology**

- Dr. (Mr.) L. Lakshmanan, M.Sc., M.Phil., Ph.D. – Dean
- Dr. (Mrs.) N. Radha , M.Sc., M.Phil., Ph.D. – Associate Professor

- Mrs.G. Sophia Reena, M.C.A., M.Phil., (Ph.D) . –Assistant Professor
- Dr. (Mrs.) C. Arun Priya, M.Sc., M.Phil, Ph.D. –Assistant Professor
- Mrs.R. Amsaveni, M.Sc., M.Phil., (Ph.D) . –Assistant Professor
- Mrs.S. Meera, M.C.A., M.Phil., (Ph.D) . –Assistant Professor
- Mrs.M. Krithika Renuka, M.C.A., M.Phil., (Ph.D) . –Assistant Professor
- Mrs.T. Thendral, M.Sc., M.Phil., (Ph.D) . –Assistant Professor
- Mrs.J. Maria shyla Thomas, M.C.A., M.Phil., (Ph.D) . –Assistant Professor
- Mrs.T. Hashni, M.Sc., M.Phil., –Assistant Professor
- Mrs.A. Sindhu, M.C.A., M.Phil., –Assistant Professor
- Ms.S.Kalaipriya, M.Sc., M.Phil., – Assistant Professor

#### **Department of BCA (Computer Applications)**

- Dr. (Mrs.) S. Karpagavalli, MCA., M.Phil.,Ph.D. – Associate Professor
- Dr. (Mrs.) J. Viji Gripsy, M.Sc., M.Phil, Ph.D. – Assistant Professor
- Mrs.K. Sathyakumari, MCA., M.Phil.,(Ph.D) . – Assistant Professor
- Mrs.K. Geethalakshmi, MCA.,M.Phil., (Ph.D) . – Assistant Professor
- Dr. (Mrs.)L. Sheeba, MCA., Ph.D. – Assistant Professor
- Mrs.S. Mohanapriya, MCA., M.Phil ., – Assistant Professor
- Mrs.M. Selvanayaki, M.Sc.,M.Phil .,(Ph,D) . – Assistant Professor
- Mrs.T.S. Anushya devi, M.Sc.,M.Phil., B.Ed.,(Ph.D) – Assistant Professor
- Mrs.T. Saranya, MCA.,MBA.,M.Phil ., – Assistant Professor
- Mrs.A. Kavitha, M.Sc.,M.Phil.,B.Ed.,(Ph.D) . – Assistant Professor
- Mrs.G.Sangeetha., M.Sc., M.Phil, (Ph.D)- Assistant Professor.
- Ms.K.Sathiya, M.Sc., M.Phil, – Assistant Professor

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

Dr(Mrs) S.N. Padmadevi, M.Sc., MPhil., B.Ed.,Ph.D,  
Associate Professor & Head, Department of Botany  
PSGR Krishnammal College for Women  
Ph. (Off) +91 422 4295959, Mobile: +91-9994297990  
E- mail: snpadmadevi@psgrkc.ac.in

#### **Additional Coordinator**

Dr.M.S.Vijaya,M.Sc.,M.Phil.,Ph.D.,  
Associate Professor and Head, Department of Computer Science,  
P.S.G.R Krishnammal College for Women  
Ph.(off) +91422 4295959, Mobile: +9442566462  
E-mail:msvijaya@psgrkc.ac.in

#### **Deputy Coordinator**

Mrs. P. Susheela,M.Sc.,M.Phil.,(Ph.D.,)  
Assistant Professor,  
Department of Zoology,  
P.S.G.R Krishnammal College for Women  
Ph.(off) +91422 4295959, Mobile: +9442566462  
E-mail:susheela@psgrkc.ac.in



## LIST OF MENTORS

### DEPARTMENT OF PHYSICS

**1. Prof. Dr. P. Kolandaivel**

UGC BSR Faculty Fellow,  
Department of Physics,  
Bharathiar University  
Coimbatore – 641046.  
Email id: ponkvel@hotmail.com  
Mobile no: 9442534390

**2. Prof. Dr. D .Mangalaraj**

UGC-BSR Faculty Fellow,  
Department of Nanoscience and Technology  
Bharathiar University,  
Coimbatore – 641046.  
Email id: dmraj800@yahoo.com, mangalaraj@buc.edu.in  
Mobile no. : 9894762141

### DEPARTMENT OF CHEMISTRY

**1. Dr. D. Ravishankaran**

Assistant Professor, Department of Nanotechnology  
PSG College of Technology  
Coimbatore- 641 004,  
EMail id: dravishankaran@hotmail.com  
Mobile no: 9487974004

**2. Dr. T. Daniel Thangadurai**

Professor and Head,  
Sri Ramakrishna Engineering College,  
Coimbatore- 641022  
EMail id: danielt@serc.ac.in  
Mobile no: 8940015441

**3. Dr. C.V. Bramanandha Rao**

Scientific Officer  
Radiochemistry Laboratory Division  
IGCAR, Kalpakkam  
EMail id: brahma@igcar.gov.in  
Mobile no: 9444886144

### DEPARTMENT OF BOTANY

**1. Dr. V. Chandrasekar**

Laboratory Director, Bioline Laboratory  
17 A, Civil Aerodrome Road  
SITRA,  
Coimbatore -641014.  
Emai id : vchandraasekar@yahoo.com  
Mobile no: 9976380300

## **2. Dr. M. Sivaswamy**

Head of the Institute

Indian Agricultural Research Institute

Regional Station, Wellington

The Nilgiris – 643 231, Tamilnadu, India.

E-mail id : head\_well@iari.res.in, iariwheatsiva@rediffmail.com

Phone: 0423-2234796

## **3. Dr. Rajendran**

Associate Professor, Department of Microbiology

PSG College of Arts & Science

Civil Aerodrome (post), Coimbatore – 641 014, Tamilnadu, India

Phone: (Off) 0422-4397901 to 905, Mobile: +91- 9443751400

E-mail: rrajendranmicro@yahoo.co.in

## **DEPARTMENT OF ZOOLOGY**

### **1. Mr. M. Mani,**

Managing Director,

Microbiological Laboratory,

12-A, Cowley Brown Rd (East),

R.S.Puram,

Coimbatore, Tamil Nadu 641002.

Phone: 0422- 254 0525.

### **2. Dr. Jagadeesh Natesan**

Research and Development,

Suguna Foods Limited,

1057, Avinashi Road,

5th floor, Jaya Enclave,

Coimbatore – 641 018, Tamil Nadu,

Phone No: 0422- 3073000

## **DEPARTMENT OF MATHEMATICS**

### **1. Dr.(Mrs) R. Paarvathi, MSc.,M.Phil.,Ph.D.,PGDCA.,**

Associate Professor and Head,

Vellalar College, Erode.

Email id : paarvathis@rediffmail.com

Mobile no.: 9487323070

### **2. Miva Yamaguchi, Dietician, Ph.D,**

Project Research Assistant Professor,

University of Jokushima Graduate School,

Japan,

Tokushima – 7708503

Email: yamaguchi@basic.med.tokushima-u.ac.jp

Mobile no: 886337073

**3. Dr.(Mrs.).P. Suguna,**  
Assistant Professor,  
Post Graduate & Research, Department of Mathematics,  
Government Arts College, Coimbatore.  
Email id: sugunadevadas@yahoo.com  
Mobile no: 9842463461

**4. Dr. L. Lakshmanan,**  
Dean Mathematical Sciences,  
PSGR Krishnammal College for Women,  
Coimbatore.  
Email id: deanmathematicsscience@psgrkc.com  
Mobile no: 9443949686

## **Computer Science, Information Technology, Computer Applications**

**1. Dr. S. Selvaraj**  
UGC – Emeritus Fellow  
Department of Bioinformatics  
Bharathidasan University  
Tiruchirappali – 620024

**2. Dr. N. Vijayaraj**  
Programme Lead,  
Biomedical Informatics, NIAID  
National Institute of Health  
United States of America  
Email id : nagarajanv@niaid.nih.gov

**3. Dr. Selvi Subramanian**  
Professor  
Department of Bio Technology  
PSG College of Technology  
Coimbatore – 641 004

**4. Dr. M. Jeyam**  
Assistant Professor  
Department of BioInformatics  
Bharathiar University  
Coimbatore – 641 046

**5. Dr. R. SubashKumar**  
Professor and Head,  
Department of BioTechnology,  
Kongunadu Arts and Science College  
Coimbatore – 641 029

**PSGR Krishnammal College of Women**

*College with Potential for Excellence*

An Autonomous College – Affiliated to Bharathiar University, Reaccredited with 'A' Grade by NAAC, An ISO 9001:2008 Certified Institution, Peelamedu, Coimbatore – 641 004

**Minutes of the DBT Star College Scheme**

**Advisory Committee Meeting**

**Date** : 18.02.2016

**Time** : 12.45 pm

**Venue** : Board Room & Chandra Seminar Hall  
PSGR Krishnammal College of Women  
Peelamedu -641004  
Coimbatore

An Advisory Committee meeting for the DBT Star College Scheme of Department of Biotechnology (DBT), Government of India was held on 18<sup>th</sup> February 2016 at PSGR Krishnammal College for Women, Peelamedu, Coimbatore to discuss and review the progress made by the science departments supported by the scheme and also regarding the induction of three more departments of the college to which the scheme has been extended.

Dr. (Mrs) N.Yesodha Devi, Secretary, welcomed the members of the Advisory Committee, Deans of various capacities and Co-ordinators of various departments. In her welcome speech, she thanked the authorities of the Department of Biotechnology (DBT), Government of India, for their support to the science departments through the Star College Scheme. She also expressed her gratitude to the authorities for extending the scheme to Departments of Computer Science, Information Technology and Computer Application.

The DBT star college activities for the year 2015-2016 was presented by the Coordinator- Dr.S.N.Padmadevi, Associate Professor of Botany. After the presentation, the external advisory members interacted with the Department Coordinators and the HODs of the science departments who highlighted the impact of the star college scheme with regard to their respective departments that included:

- Organizing Indian Science Academies' Lecture Workshop Series that involves the participation of researchers from the science departments from various other colleges as eminent scientists and academicians are invited for motivating young minds towards research.

- Organizing Guest lectures by the departments in various fields that enriched the students with the latest updates of the subject and gave them an insight regarding avenues for higher studies, placement etc.
- Industry oriented hands on training in tie-up with Industries/ Corporates like – Toshiba, Bioline, Biozone, Seeds Enviro, Thanyas Organic Pvt. Ltd etc.
- Industrial visits undertaken by the III year students to BITS Pilani, Goa Campus, Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Kerala, Biozone Research Technologies, Chennai, Prawn Culture Farm, Muttukadu, Chennai, Sea Blue Shipyard, Cochin wherein the students gained knowledge on the latest technical updates in the industries.
- Workshops conducted by
  - Chemistry Department - Chemical Analysis for wet and Instrumental methods and Medical Textiles in collaboration with Si'Tarc and SITRA - Centre of Excellence for Medical Textiles respectively.
  - Botany Department -Environmental Biotechnology in collaboration with PSG College of Arts & Science, Kitchen garden, Terrace garden and Nursery techniques Inter-departmental with Zoology
  - Zoology Department- Haemoglobin Estimation and Detection of Blood Group.
  - Mathematics Department - Preparation for competitive examinations and Mathematical modeling
- Emphasis was also made on the student involvement in the Women technology Park (WTP) at Annur, wherein they are nurtured to bring out their entrepreneurial skills through various training programmes provided and the students are able to reach out to the society through community service programmes.

#### **Recommendations**

Dr.Suman Govil recommended for enhanced inter departmental/Interdisciplinary activities among the departments and also suggested

- To involve students towards outreach and societal projects.
- Short term training programmes for the faculty.
- To empower students as well as the faculty through the scheme.
- For the inclusion of an additional co-ordinator for the scheme.

Prof Dr. R. Rajendran suggested the coupling of the Star College Scheme along with the Women Technology Park (WTP) Scheme so as to reach out to the society

Prof Dr. D. Mangalaraj also insisted upon conducting more inter and intra departmental activities.

The advisory committee members visited the Physics, Chemistry, Botany, Zoology and Mathematics departments. The reports for the various activities and records were kept for their perusal. The Committee members interacted with the students regarding the projects, practicals and the other interdepartmental and interdisciplinary activities. Dr. Suman Govil and the other members appreciated for the overall presentation and the proper utilization of the grant for the UG students.

Dr. Suman Govil lighted the Kuthu Vilakku to mark the extension of the star college scheme to three new departments. Dr. Suman Govil addressed the student community and encouraged the students to make use of the star college scheme to excel in their respective areas of study.

Dr. (Mrs) S. Nirmala, Principal proposed the vote of thanks.

*S. Nirmala*

**PSGR KRISHNAMMAL COLLEGE FOR WOMEN  
ADVISORY COMMITTEE MEMBERS**

**Chairman:** **Dr (Mrs) S. Nirmala**, M.B.A., M.Phil., 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)

*S. Nirmala*

**Advisor:** **Dr Suman Govil**  
Advisor, HRD Division  
Department of Biotechnology  
(Ministry of Science & Technology)  
6<sup>th</sup> Floor, Room No. 606  
Block – 2, CGO Complex, Lodi Road  
New Delhi – 110 003  
E-mail: [suman@dbt.nic.in](mailto:suman@dbt.nic.in)

*S. Govil*

**Members**

**External Experts (2)**

1. **Dr.D.Mangalaraj** M.Sc., Ph.D  
BSR Fellow, 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)

*D. Mangalaraj*  
18/2/16

2. **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)

*RR*  
18/2/2016

**Overall Coordinator, Member-Secretary**

**Dr. S.N. Padmadevi** M.Sc., MPhil., B.Ed., Ph.D  
Associate Professor, Department of Botany,  
P.S.G.R. Krishnammal College for Women,  
Ph. (Off) +91 422 4295959, Mobile: +91-9994297990  
E. mail: [snpadmadevi@gmail.com](mailto:snpadmadevi@gmail.com).

*S. N. Padmadevi*

**Additional Coordinator**

**Dr. M.S.Vijaya**, M.Sc., M.Phil, Ph.D  
Associate Professor and Head, Department of Computer Science,  
P.S.G.R. Krishnammal College for Women,  
Ph. (Off) +91 422 4295959, Mobile: +91-9442566462  
E. mail: msvijaya@psgrkc.com

*M.S. Vijaya*

**Deputy Coordinator**

**Mrs. P.Susheela** M.Sc., M.Phil.,  
Assistant Professor, Department of Zoology,  
P.S.G.R. Krishnammal College for Women,  
Ph. (Off) +91 422 4295959, Mobile: +91-9965508972  
E. mail: [susheelasomu@gmail.com](mailto:susheelasomu@gmail.com), [susheela@psgrkc.com](mailto:susheela@psgrkc.com)

*[Signature]*

**Heads of Science Departments**

1. **Dr. P. Meena**, M.Sc., M.Phil., Ph.D. - Associate Professor *P. Meena*
2. **Dr. K. Parameswari**, M.Sc., M.Phil., Ph.D. - Associate Professor *K. Parameswari*
3. **Dr. R.S. Meerabai**, M.Sc., M.Phil., B.Ed., Ph.D., PGDCA - Associate Professor *R.S. Meerabai*
4. **Dr. N. Ezhili** M.Sc., M.Phil., B.Ed., Ph.D - Associate Professor *N. Ezhili*
5. **Dr. B. Tamilselvi**, M.Sc., M.Phil., Ph.D - Associate Professor *B. Tamilselvi*
6. **Mrs. S.C. Punitha**, M.Sc., M.Phil, MFT- Assistant Professor *S.C. Punitha*
7. **Mrs. G. Sophia Reena**, MCA, M.Phil - Assistant Professor *G. Sophia Reena*
8. **Mrs. K. Geethalakshmi**, MCA, M.Phil, B.Ed - Assistant Professor *K. Geethalakshmi*

**Coordinators (from all Participating Departments)**

1. **Mrs. M. Lavanya**, M.Sc., M.Phil.  
Assistant Professor- Department of Physics *M. Lavanya*
2. **Dr. D. Nalini**, M.Sc., M.Phil., B.Ed., M.C.A., Ph.D.  
Assistant Professor-Department of Chemistry *D. Nalini*
3. **Dr. B. Chitra Devi**, M.Sc., M.Phil., Ph.D.  
Assistant Professor- Department of Botany *B. Chitra Devi*
4. **Dr. P.B. Harathi**, M.Sc., M.Phil., Ph.D.  
Assistant Professor- Department of Zoology *P.B. Harathi*
5. **Dr. D. Sasikala**, M.Sc., M.Phil., Ph.D.  
Assistant Professor- Department of Mathematics *D. Sasikala*
6. **Mrs. S.C. Punitha**, M.Sc., M.Phil, MFT.  
HOD & Assistant Professor - Department of Computer Science (UG) *S.C. Punitha*
7. **Mrs. G. Sophia Reena**, MCA, M.Phil.  
HOD & Assistant Professor - Department of IT & ISM *G. Sophia Reena*
8. **Mrs. K. Geethalakshmi**, MCA, M.Phil, B.Ed.  
HOD & Assistant Professor - Department of Computer Applications *K. Geethalakshmi*