
EVALUATIVE REPORT OF THE DEPARTMENT



Department of Biotechnology



1. **Name of the Department** : **BIOTECHNOLOGY**
2. **Year of Establishment** : Biotechnology Department was established in the year 2001 in St.Peter's Engineering College which was declared as Deemed to be University in 2008.

3. **Is the Department part of a School / Faculty of the University ?**

Department of the University

4. **Names of the Programmes offered (UG, PG, Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt etc.)**

- B.Tech., (Biotechnology) Suspended
- M.Tech., (Biotechnology) Suspended
- M.Phil., (Biotechnology)
- Ph.D., (Biotechnology)

5. **Interdisciplinary programmes and departments involved**

| S. No | Interdisciplinary courses | Year /Sem | Departments |
|---|----------------------------------|-----------|------------------------|
| UG Programme B.Tech Bio Technology | | | |
| 1 | 113EHT01-Technical English-I | I/I | English |
| 2 | 113MAT02-Mathematics-I | I/I | Mathematics |
| 3 | 113PHT03-Engineering Physics-I | I/I | Physics |
| 4 | 113CYT04-Engineering Chemistry-I | I/I | Chemistry |
| 5 | 113EGT06-Engineering Graphics | I/I | Mechanical Engineering |
| 6 | 113CPT05-Computer Programming | I/I | CSE |
| PG Programme M.Tech Bio Technology | | | |
| 7 | 113AEPT01-Applied Mathematics | I/I | Mathematics |

6. **Courses in collaboration with other universities, industries foreign institutions, etc.**

Nil

7. **Details of programmes discontinued, if any, with reasons**

Nil

8. **Examination System: Annual/Semester/Trimester/Choice based Credit System**

Semester system and Choice Based Credit System (CBCS)

9. **Participation of the department in the courses offered by other departments.**

Nil

10. **Number of teaching posts sanctioned, filled and actual (Professors / Associate Professors / Asst. Professors / Others).**

| | Sanctioned | Filled | Actual (including CAS & MPS) |
|---------------------|-------------------|---------------|---|
| Professor | - | 1 | 1 |
| Asst. Professors | 2 | 2 | 2 |
| Others | - | - | - |

11. **Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance.**

| S. No. | Name of the Faculty | Qualification | Designation | Specialization | No. of Years of Experience | No.of Ph.D ./ M.Phil Students guided for the last 4 years. |
|--------|---------------------|---------------------|------------------|----------------|----------------------------|--|
| 1. | Dr.K. Valivittan | M.Sc. M.Phil., Ph.D | Senior Professor | Biochemistry | 40 yrs | Ph D-8 M Phil-2 |
| 2. | Dr.A. Selva Prabhu | M.Sc. Ph.D | Asst.. Prof. | Marine biotech | 5 yrs | 2 |
| 3. | Ms.A.Kasthuribai | M.Tech | Asst Prof. | Bioprocessing | 8 yrs | - |

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors.

Nil

13. Percentage of classes taken by temporary faculty – programmes-wise information.

Nil

14. Programmes -wise Student: Teacher Ratio

| S.No | Programme | Students Strength | Student : Staff Ratio |
|------|------------------------|-------------------|-----------------------|
| 1 | B.Tech – Biotechnology | 30 | 15 : 1 |

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual.

16.

| | Sanctioned | Filled | Actual (including CAS & MPS) |
|------------------------|------------|--------|------------------------------|
| Academic support staff | 1 | 1 | 1 |

17. Research thrust areas as recognized by major funding agencies.

- Anticancer drugs
- Stem cell research

18. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise

| S.No. | Name of the investigator | Funding Agency | Title | Total Grant in Rs. | Status |
|-------|--------------------------|------------------|--|--------------------|---------|
| 1. | Dr.K.Valivittan HOD | MoEF Dec 2013 | Evaluation of therapeutically potential Bio-resources from Marine sample | 39.40 Lakhs | Applied |

19. Inter-institutional collaborative projects and associated grants received

- a). National collaboration : Nil
b). International collaboration : Nil

20. Departmental projects funded by DST-FIST, UGC-SAP/CAS, DP; DBT, ICSSR, AICTE, etc; total grants received.(more than 5 year old awards) ?

| S. No. | Name of the investigator | Funding Agency | Title | Total Grant in Rs. | Status |
|--------|--|----------------|--|--------------------|-----------|
| 1 | Dr.S.Meignana Lakshmi, Professor | AICTE | Novel peptide antibiotics and anti-cancer peptides production from Mung bean | 10.5 Lakhs | Completed |
| 2. | Dr.S.Meignana Lakshmi Professor | TNSCST | Production of peptide antibiotics from Milk Whey protein | 1.35 Lakhs | Completed |

21. Research facility / centre with

- **State recognition** : Labs -5
- **National recognition** : Labs-5
- **International recognition:** Nil

22. Special research laboratories sponsored by / created by industry or corporate bodies.

Nil

23. Publications

**Number of papers published in peer reviewed journals
(National / international)**

| Year | International Journal | International Conference | National Conference | Total |
|--------------|------------------------------|---------------------------------|----------------------------|--------------|
| 2008 | 1 | - | - | 1 |
| 2009 | 2 | - | - | 2 |
| 2010 | 1 | - | - | 1 |
| 2011 | 7 | - | - | 7 |
| 2012 | 1 | - | - | 1 |
| 2013 | 7 | 2 | - | 9 |
| 2014 | 16 | - | - | 16 |
| 2015 | 4 | - | - | 4 |
| Total | 39 | 2 | - | 41 |

Publications

| S.No | Title |
|-------------|---|
| 2008 | |
| 1. | Ceasar S.A. and Ignacimuthu, S. S., “Highly efficient somatic embryogenesis and plant regeneration in different genotypes of finger millet”, In Vitro cellular and Developmental Biology-Plant International (USA)- Springerlink; 44:427-435, Sep 2008. SCOPUS |
| 2009 | |
| 2. | Thiyagarajan B, and Valivittan K. , “Ameliorating effect of vitamin E on in vitro development of pre implantation buffalo embryos”, J Assist Reprod Genet. [Epub ahead of print] (U K), Feb 2009. SCOPUS |
| 3. | Thiyagarajan B, and Valivittan K. , “Effect of all-trans retinol in vitro development of pre implantation buffalo embryos animal”, Journal of Animal, The Animal Consortium U K., 2009. |
| 2010 | |
| 4. | S Antony Caesar , Lenin Maxwell, K.Bhargav Prasad, M.Karthigan and Savarimuth Ignacimuthu, “Highly efficient shoot regeneration of Bacopa monnieri (L) using a two-stage culture procedure and assessment of genetic integrity of micropropagated plants by RAPD”, Journal of Acta Physiol Plant, Vol.32, pp443-452, 2010. SCOPUS (IF:1.53) |
| 2011 | |
| 5. | David George and Alain Bliet, “Rise of the Earliest Tetrapods: An Early Devonian Origin from Marine Environment, Plos One, Vol.6, Issue.7, e22136, July 2011, SCOPUS |
| 6. | Deepa Philip, PK Kaleena and K.Valivittan , “In vitro cytotoxicity and anticancer activity of Sansevieria roxburghiana Int.J. Curr. Pharma. Res. 3.(3) 71-73, 2011 (IF:4.34) |
| 7. | S.Deepa, K.Valivittan , Indira Vincent and C.S. Tharadevi. “Bioremediation of tannery Effluent by selected Fungal Species”, Biosci., Biotech. Res.Asia. 8(1): 143-150, 2011 SCOPUS |
| 8. | Thangaraja Amrithalingam , Jegatheesan Kalirajan and Arunkumar Chockalingam, “Use of Silica-Gold core shell structured Nanoparticles for Targeted Drug Delivery system, J Nanomedic Nanotechnol, ISSN: 2157-7439, JNMNT an open access journal, Vol :2, Issue.6, 2011 (IF:5.72) |

| | |
|-------------|---|
| 9. | Deepa Philip, PK Kaleena and K.Valivittan , “GC-MS Analysis and antibacterial activity of chromatographically separated pure fractions of leaves of <i>Sansevieria roxburghiana</i> ,” Asian J Pharm & Clin.Res. 4(4): 130-133, 2011. SCOPUS |
| 10. | Deepa Philip, PK Kaleena, K.Valivittan and C P Grish Kumar. “Phytochemical Screening and Antimicrobial activity of <i>Sansevieria roxburghiana</i> ” Middle East J Sci. Res.10(4)512-518, 2011. SCOPUS |
| 11. | S.Deepa , K.Valivittan, Indira Vincent and C.S.Tharadevi, “Characterisation of Tannery Effluentm Thirumdivakkam, Chennai, Tamil Nadu, Journal Basic and Applied Biology, ISSN 0973-8207, pp. 259 – 264, 2011,. |
| 2012 | |
| 12. | Deepa Philip, PK Kaleena and K.Valivittan , “Antioxidant potential of <i>Sansevieria roxburghiana</i> ”. Asian J Pharm & Clin.Res. 5(3): 166-169, 2012. SCOPUS |
| 2013 | |
| 13. | S. Deepa., K. Valivittan ., Indira Vincent., and C.S. Tharadevi, “A study on Mycotic diversity of tannery effluent and chromium adsorption”, J. Pure and Applied Microbiol.7 (4).1-7, 2013. SCOPUS |
| 14. | G.S. Rekha, K. Valivittan and P.K. Kaleena. “Studies on the Influence of Vermicompost and Vermiwash on the Growth and Productivity of Black Gram (<i>Vignamungo</i>)”, Advances. Biological. Res. 7(4): 114-121, 2013. (IF:1.659) |
| 15. | Ramalingam Mani, Boominathan Meena and Karuppiyah Valivittan “Cadmium Accumulation and Metallothionein Induction in Marine Catfish <i>Arius arius</i> on Exposure to Cadmium”, International J. Biol. & Pharm. Res. 2013. (IF:1.34) |
| 16. | Ganesan V, Aruna Devi, Astalakshmi, Nima and Thangaraja.A , “Eco-friendly synthesis of silver nanoparticles using a sea weed, <i>Kappaphycus alvarezii</i> (Doty) Doty ex P.C.Silva”, International Journal of Engineering and Advanced Technology, Vol 2, Issue 5, pp 559-563, June 2013. (IF:1.0) |
| 17. | Ganesan.V, Aruna Devi.J, Astalakshmi.A, Nima.P and Thangaraja.A , “Eco-Friendly Synthesis of Silver Nanopracticles using a sea weed, <i>Kappaphycus Alvarezii</i> (Doty) Doty ex P.C.Silva” International Journal of Engineering and Advanced Technology (IJEAT) ISSN:2249-8958, Volume-2 Issue-5, June 2013 |

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|-------------|---|
| 18. | S.Dhanapal , D.Sathish Sekar & P.Manasa, "Enhancement of Antioxidant Potential in <i>Musa Accuminata</i> using Humic Acid", International Journal of Agriculture Innovations and Research Vol. 2, Issue 4, ISSN (Online) 2319-1473, pp. 424-430 |
| 19. | S.Dhanapal , & D.Sathish Sekar, "Humic Acids and its role in Plant Tissue Culture at Low Nutrient Level", Journal of Academic and Industrial Research (JAIR), ISSN : 2278-5213, Journal of Academic and Industrial Research (JAIR), ISSN: 2278-5213, Vol. 1, Issue 6, November 2013, pp. 338-340 |
| 2014 | |
| 20. | Logesh and A.Thangaraja , "Screening of Utilization and Nutritive Value of Seasonal Fruits at Palverkadu, Tamil Nadu", Global Journal of Mod. Biol. & Tech., ISSN 2277-6656, 2014:4(1), Pp:20-24 |
| 21. | Logesh and A.Thangaraja , "Characterization and BioActive potential of chosen Fruits", Global Journal of Egeineering & Appli. Sciences, ISSN 2249-2631, 2014:4(1), Pp:9-15 |
| 22. | Valvittan.K. and P.Dhasarathan, "Screening of Phytochemicals and antimicrobial activity in <i>Tridox procumbens</i> ", Global Journal of Modern Biology & Technology, pp14-19, 2014. (I.F.:2) |
| 23. | Valvittan.K. and P.Dhasarathan, "Analysis of phytochemical and enzymological studies in extract of <i>Tridox procumbens</i> ", Global Journal of Modern Biology & Technology, pp5-8, 2014. (I.F.:2) |
| 24. | Logesh and A.Thangaraja , "Screeing of Utilization and Nutritive value of seasonal fruits at palverkadu, Tamilnadu" Global J. of Mod. Biol. & Tech., 2014:4(1) |
| 25. | Logesh and A.Thangaraja , "Characterization and Bioactive potential of chosen fruits" Global J. of Engg. & Appl. Sciences, 2014 : 4(1) |
| 26. | R.Mani, B.Meena and K.Valivittan , "Metallothionein Induction on Exposure to CADMIUM in Marine Catfish <i>Arius Arius</i> " International Journal of Biological & Pharmaceutical Research 2014; 5(4); 293-300. (IF:1.34) |
| 27. | Ramalingam Mani, Boominathan Meena and Karuppiah Valivittan ," Metallothionein Expression in Marine Catfish <i>Arius Arius</i> Liver on Exposure to cadmium using immunohistochemistry and western Blot.Int.J.Pharm & Pharmaceut.Sci. 6(2):818-821. (IF:2.191) |
| 28. | Pallvarnanathasamy Dhasarathan, Pugazhenth.M, Valivittan.k. and Sujatha.M, "Analysis of humaoral immune response of animals exposed to bacterial antigens" Central European Journal of Immunology 2014; 39(2).1-4. (IF:0.358) |

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| 29. | R.Mani, B.Meena, K.Valivittan and A.Suresh, "Glutathione-S-Transferase and Catalase Activity in Different Tissues of Marine Catfish Arius on Exposure to Cadmium, International Journal of Pharmacy and Pharmaceutical Science, Volume 6, Issue 1:326-332, 2014. (IF:2.191) |
| 30. | C.Madhuvanthi, K.Santhosh Kumar, S. Antony Cesar, K.Valivittan , K.Srinivasan, and A.Tamilselvi, Antibacterial, Antioxidant and Antiproliferative, Activities of Solvent Extracts of Tiliacora Acuminata, International Journal of Pharmacy and Pharmaceutical Science, Volume 6, Issue 9:398-403, 2014(IF:2.191) |
| 31. | Hemalatha.J, Kaleena.P.K and K.Valivittan . 2014. "Screening of antibacterial activity of <i>C.grandis</i> against pathogens", Global J Mol. Biol & Tech. 4(3): 51-56 |
| 32. | K.Iyyanuchamy, K.Valivittan and P.Dhasarathan,"Effect of chosen disinfectants on in vitro system of fosh Cyprinus carpio", Global J Mol.Biol &Tech. 4(3):1-4. |
| 33. | Hemalatha.J, Kaleena.P.K and K.Valivittan ,"Impact of Plant Extract, Coccinia Grandis on Digestive Tract Microflora", International journal of pharma and Biological science 2014. |
| 34. | N.Kiruthiga and D.Sathish Sekar,"Studies on Photochemicals and Steroid Isolation from N-Hexane Extract of Anisochilus carnosus" International Journal of Advanced biotechnology and Research (IJABR), Volume 5, Issue 3, 2014, pp 337-345. (IF:0.506) |
| 35. | N.Kiruthiga and D.Sathish Sekar,"Anticancer Activity of Ethanol Extracts of Anisochilus Carnosus in human lung cancer A549 cell lines", International Journal of current Research, Volume 6, Issue 11, pp 10033-10037, November 2014.(IF:3.864) |
| 2015 | |
| 36. | Hemalatha.J, Kaleena.P.K and K.Valivittan ,"Impact of Plant Extract, Coccinia Grandis on Digestive Tract MicroFlora" International Journal of Pharma and Bio Sciences, Int J Pharm Bio Sci 2015 Jan; 6(1): (B) 1184 – 1189 |
| 37. | Deepa Philip, Kaleena.P.K, K.Valivittan and Florida.T , " Induction of Apoptosis by caspases in the Leaves of Sansevieria Roxburghiana Schult and Schult.F"World Journal of Pharmaceutical Research Volume 4, Issue 2, 1471-1476,ISSN 2277-7105,(IF:5.045) |
| 38. | Kavitha J.B. and K.Valivittan ," Analysis of Proximate Composition in Fish Exposed to Pyrochemicals and Treated with Mentha Arvensis" Global Journal of Mod. Biol. & Tech 2015: 5(1) |
| 39. | Nalini.S and K.Valivittan , "Antibacterial Efficiency of Averrhoa Carambola L Against Staphylococcus Aureus" Global Journal of Mod. Biol. & Tech 2015: 5(1) |

| International Conferences | |
|----------------------------------|--|
| 2013 | |
| 40. | Thangaraja, A., Christy Mathelin, R. , Soundarya Devi, Khushbu Singh, and Valivittan, K. , 2013. Immobilization Silver nano core shell synthesized using Ocimum basilicum leaves on cotton bandage for testing bactericidal activity. International Conference on BioEngineering (ICBE-2013) Jan2-4, 2013 |
| 41. | Nandakumar,S., Ganesh Babu, S. Amit, Valivittan,K. , and Thangaraja, A.. 2013. Green synthesis of silver core-shell nanoparticles using leaf extract Ocimum basilicum. International Conference on BioEngineering (ICBE-2013) Jan2-4, 2013 |

b) Monographs : Nil

c) Chapters in Books : 1

d) Edited Books : Nil

e) Books with ISBN with details of publishers:

| S. No. | Name of the Authors | Title of the Book | ISBN No. | Publisher |
|---------------|--|--|-------------------|--------------------------------|
| 1. | Thangaraja Amirthalingam, Arun, T, Prasoon Kumar | Biosynthesis silica nanoparticles and its application in Bionanotechnology' In: Application of Nanomaterials | 1-62 699 0001 | Press LLC, USA |
| 2. | Thangaraja A and Ganesan | Reproductive biology and genetic diversity of Terminalia paniculata. | 97 - 83659118302. | Academic Publishing GmbH & Co. |

f) Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database – International Social Sciences Directory , EBSCO host, etc) –

Web of Science -1, Scopus-12,
Indexing-5, ISI-2,Dare Database-3,
EBSCO host-1

g) Citation Index - range/ average – : 97

h) SNIP - : Nil

i) SJR - : Nil

j) Impact factor - Range /average : 0.05 -5.7/ 2.56

k) H-index - : 1-10

l) Total Impact factor – 50.09

23. Details of Patents and income generated

Nil

24. Areas of consultancy and income generated

Nil

25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad

Nil

26. Faculty serving in a) National committees b) International committees c) Editorial Boards d) any other (please specify) -

a) Faculty serving in National Committees

| S. No. | Faculty Name | Details |
|--------|-------------------------------|--|
| 1 | Dr.K.Valivittan, Professor | <ul style="list-style-type: none">• Board of studies member in other Universities.• Academic Council.• Reviewers for national Journals.• Member-Environment impact assessment authority |

b) Faculty serving in International Committees

| S. No. | Faculty Name | Details |
|--------|-------------------------------|---|
| 1 | Dr.K.Valivittan, Professor | <ul style="list-style-type: none">Reviewers for International Journals. |

c) Faculty serving in Editorial Board

| S. No. | Faculty Name | Details |
|--------|-------------------------------|---|
| 1 | Dr.K.Valivittan, Professor | <ul style="list-style-type: none">Editorial committee member for national and International Journals. |

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs , workshops training programs and similar programs.

Faculty members and students participate in conferences / seminars / symposia / workshop / refresher courses / short term courses / industrial visits periodically.

28. Student projects

- Percentage of students who have done in – house projects including inter-departmental projects – 10 % **M.Phil Project from Chemistry Dept.**
- Percentage of students doing projects in collaboration with other universities / industry / institute - UG – 10 %,

| Year | percentage of in–house projects | percentage of Projects in collaboration with other Universities/Industry/ Institute |
|---------------|---------------------------------|---|
| UG | | |
| 2008-2015 | 90% | 10% |
| M.Phil | | |
| 2008-2015 | 10% | 90% |

29. Awards / recognition received at the national and international level by

- **Faculty**

| S.No | Faculty Name | Details |
|-------------|---------------------------------------|--|
| 1. | Dr. K Valivittan, Professor & Head | <ul style="list-style-type: none">• Tamilnadu State Expert member- Environment Impact Assessment Authority |

- **Doctoral / Post-doctoral fellows - Nil**

- **Students – Nil**

30. Seminars / Conferences/ Workshops organized and the source of funding (national / international with details of outstanding participants, if any.

Nil

31. Code of ethics for research followed by the departments

- Researchers must respect the rights, interests and dignity of participants and related persons in research.
- Research must be undertaken in accordance with any relevant common law or legislation.
- Informed consent should normally be obtained from participants.
- Consent itself should be given freely without force or coercion.
- Researchers have an obligation to protect research participants wherever possible from significant harm consequent upon the research.
- The confidentiality of information supplied by research participants and any agreement to grant anonymity to respondents should be respected
- All research involving human participants whether undertaken by academic staff, other university staff or students is to be subject to ethical approval.
- Both the design of research and its conduct should ensure integrity and quality.
- Research is to be undertaken subject to the principle of academic independence. Where any conflicts of interest or partiality arise, these must be clearly stated prior to ethical approval being obtained.

32. Students profile programmes-wise.

| Name of the Programme (refer to question no.4) | Applications received | Selected | | Pass Percentage | |
|--|-----------------------|----------|--------|-----------------|--------|
| | | Male | Female | Male | Female |
| B.Tech | | | | | |
| 2008-2012 | 30 | 10 | 10 | 100 | 100 |
| 2009-2013 | 12 | 3 | 4 | 100 | 100 |
| 2010-2014 | 4 | 1 | 1 | 100 | 100 |
| 2011-2015 | 2 | - | - | - | - |
| 2012-2016 | 10 | 4 | 1 | - | - |
| M.Tech | | | | | |
| 2012-2014 | 4 | 2 | 0 | 100 | - |
| 2013-2015 | 10 | 2 | 4 | 100 | 100 |
| 2014-2016 | 3 | 1 | - | - | - |

33. Diversity of students:

| Name of the Programme (refer to question no. 4) | % of students from the same university | % of students from other universities within the state | % of students from universities outside the state | % of students from other countries |
|---|--|--|---|------------------------------------|
| B.Tech Biotechnology | NA | NA | NA | NA |
| M.Tech Biotechnology | - | 82 | 18 | - |
| M.Phil Biotechnology | - | 100 | - | - |
| PhD. Biotechnology | - | 100 | - | - |

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations?. Give details category-wise.

| S.No. | Name of the student | Programme & Batch | Competitive Exams details |
|-------|---------------------|-------------------|---------------------------|
| 1. | Hemanth kumar | B Tech IV Year | GATE 2014 |

35. Student Progression:

| Student Progression | Percentage against enrolled |
|---------------------------------|-----------------------------|
| UG to PG | 28 |
| PG to M.Phil | - |
| PG to Ph.D. | - |
| Ph.D to Post-Doctoral | - |
| Employed | |
| * Campus Selection | 25% |
| * Other than Campus recruitment | 30% |
| Entrepreneurs | - |

36. Diversity of staff

| Percentage of faculty who are graduates | |
|--|-----|
| of the same university | Nil |
| from other universities within the state | 3 |
| from universities from other states | Nil |
| from universities outside the country | Nil |

37. Number of faculty who are awarded M.Phil., Ph.D., D.Sc., and D.Litt. during the assessment period.

Nil

38. Present details of departmental infrastructural facilities with regards to

a) Library:

- No. of Books : 186
- No. of Titles : 134
- No. of Journals subscribed : 03
- NPTEL Lectures

b) Internet facilities for staff and students – Yes

- Name of the Internet Provider : NKN + BSNL
- Available Bandwidth : 1 Gbps
- Students, faculty and staff can access internet from the computer systems available in the computer laboratory.

c) Total number of class rooms : 7

d) Class rooms with ICT facility : 1

e) Students laboratories :

- Biochemistry Lab
- Microbiology Lab
- Bioprocess Lab
- Molecular Biology Lab
- Immunology Lab

f) Research laboratories : SAIF.

39. List of doctoral, post-doctoral students and Research Associates

a) From the Host Institution/University

| S.No | Register No | Name of the Student |
|------|--------------|------------------------------|
| 1 | SP10BTDB93 | Mr.S.Dhanapal |
| 2 | SP10BTDB104 | Mr.R.Mani |
| 3 | SP12BTD067 | Mr.A.Alex John Thangapaul |
| 4 | SP12BTD069 | Mr. R. Mahesh Kumar |
| 5 | SP12 BTD 098 | Mr.M.Mark Praveen Kumar |
| 6 | SP13BT068 | Ms. G.Rekha |
| 7 | SP13BT069 | Ms.R.Suganthi |
| 8 | SP13BTD001 | K.Arunthathi |
| 9 | SP13BTD501 | K.Kala |
| 10 | SP14BTD002 | Indira K |

b) from other Institutions / Universities –

Nil

40. Number of post graduate students getting financial assistance from the university.

Nil

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

Survey was made.-from parents, alumni public and students

42. Does the department obtain feedback from

a) Faculty on curriculum as well as teaching –learning – evaluation? If yes, how does the department utilize the feedbacks?

Based on the feedback the syllabus is updated/modified. More effective pedagogical and evaluation methodologies are evolved to improve the teaching-learning process including problem solving, batch learning, group and independent assignments, and micro seminars.

b) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedbacks?.

Yes. Student evaluation of teachers is done at the end of the semester. If there are any issues, the concerned teachers are advised to improve their teaching skills. Students' feedback on the curriculum is taken into account while updating the syllabus in the Board of Studies. Special classes are organized for students who express the need for extra coaching.

c) Alumni and employers on the programmes offered and how does the department utilize the feedbacks?.

Alumni regularly visit the department as guest lecture, members of Boards of Studies, and as Resource Persons for conferences and workshops. Their feedback on the curriculum, teaching-learning and evaluation is sought and implemented.

43. List the distinguished alumni of the department

| S. No | Name of the Alumni | Batch | Company |
|--------------|---------------------------|--------------|---------------------------------|
| 1 | Arun.P | 2008-12 | Vinayaga Hospital, Viruthasalam |
| 2 | Raviranjana | 2008-12 | Mediclone Company, Chennai |
| 3 | Vishnupriya | 2008-12 | HCL Technologies Chennai |
| 4 | Varthan | 2008-12 | Bihar Govt services |
| 5 | Premkumari | 2008-12 | Buffalo University, USA |
| 6 | Prasoonkumar | 2008-12 | INFOSYS |
| 7 | Prathysa | 2008-12 | INFOSYS |

| | | | |
|----|------------------|---------|--|
| 8 | Selvan parishad | 2008-12 | INFOSYS |
| 9 | Ratnapriya | 2008-12 | Medical coding, Chennai |
| 10 | Ruchipriya | 2008-12 | Medical coding, Chennai |
| 11 | Ganeshkumar | 2009-13 | M.S Biotech – studying in Anna University, Chennai |
| 12 | Kuspoo Singh | 2009-13 | S DFA Financial services, Chennai |
| 13 | Soundaryadevi | 2009-13 | M.Tech Biotechnology, Chennai |
| 14 | Nivetha thampi | 2009-13 | M.Tech Biotechnology Chennai |
| 15 | Christy Mathelin | 2009-13 | M.Tech Biotechnology Chennai |
| 16 | Hemanthkumar | 2009-14 | M.Tech Food Technology – Anna University, Chennai |
| 17 | Amit Samal | 2010-14 | Life Cell International Executive- Cryopreservation GURGAON |

44. Give details of student enrichment programmes (special lectures / workshops / seminar) including external experts.

| S.No | Event name | External Experts |
|-----------------------------------|---|--|
| SPECIAL LECTURES ORGANIZED | | |
| 1. | Importance of Nanotechnology in Veterinary Sciences | Dr. Indira Vincent, Associate Professor Dept of Animal Biotechnology, Presidency College, Chepauk, Chennai – 5 |
| 2. | Importance of G.M. Crops in Agriculture | Dr. P.K. Kaleena, Associate Professor |

| | | |
|----|---|---|
| | | Dept of Animal Biotechnology, Presidency College, Chepauk, Chennai - 5 |
| 3. | Importance of GMO in Biotechnology | Dr. Gayathri, Associate Professor Dept of Biomedical Engineering, St. Peter's University, Avadi, Chennai - 54 |
| 4. | Phylogeny Analysis | Dr. V. Ganesan, Head, Research and PG Department of Botany, ANJA College, Sivakasi. |
| 5. | Applications of Bioinformatics Research | Dr. L. Veerakumari Associate Professor and Head, Department of Zoology, Pachayappa College, Chennai |
| 6. | Job Opportunities in Biotechnology | Dr. K. Srinivasan, Scientist Central Leather research Institute, Adyar, Chennai. |
| 7. | Anticancer medicinal plants | Dr. P.K. Kaleena, Associate Professor Department of Advanced Zoology and Biotechnology, Presidency College, Chepauk, Chennai - 5 |
| 8. | Animal models in Biotechnological research | Dr. Indira Vincent, Associate Professor Department of Advanced Zoology and Biotechnology, Presidency College, Chepauk, Chennai – 5 |

| PLACEMENT TRAINING ORGANIZED FROM 2010-2015 | | | |
|--|---|-----------|--|
| 1 | Live Life Curriculum for 1 st , 2 nd and 3 rd year students | 2012-2013 | Dr. Kannan Girish Psychiatrist, Ms.Jennifer |
| 2 | Training on Analytical and communication skills for final year students | 2012-2013 | Smart Training Resources Pvt. Ltd, Chennai |
| 3 | Live Life Curriculum for 1 st year students | 2013-2014 | Dr. Kannan Girish Psychiatrist, Ms.Jennifer |

| | | | |
|---|---|-----------|--|
| 4 | Training on Analytical and communication skills for final year students | 2013-2014 | Smart Training Resources Pvt. Ltd, Chennai |
| 5 | Training on Analytical and communication skills for final year students | 2014-2015 | Smart Training Resources Pvt. Ltd, Chennai |
| 6 | Training on Analytical and communication skills for final year students | 2015-2016 | Smart Training Resources Pvt. Ltd, Chennai |

45. List the teaching methodology adopted by the faculty for different programmes

LCD presentations, OHP, Compact Discs, Interaction in the Laboratories, Seminars, Guest Lectures, Industrial Visits and In-plant training.

46. How does the department ensure that programmes objective are constantly met and learning outcomes are monitored?.

Unit tests, Model exams Assignments, and Seminars.

47. Highlight the participation of students and faculty in extension activities.

- Skill development training programmes
- Placement training programme
- Entrepreneurship training programme

48. Give details of “beyond syllabus scholarly activities” of the department

- The University has Anna University Edu Sat link through which students and faculty have access to the classes which are conducted once a week by senior Professors on selected subjects.
- The Faculty members of the department discuss with the students to share the knowledge on the recent advances in thrust areas like biotechnology, food technology, nanotechnology etc.,
- The University also arranges special lectures from the industrial consultants and experts from other institutions.

49. State whether the programme / department is accredited / graded by other agencies? If yes, give details

The St Peter's University is an **ISO 9001-2008** certified institution and certified by **TUV-SUD** Asia.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied

The contributions in terms of research publications, discussions made with the researchers of other Institutions (both at National and International level) fetched collaborative projects in the fields of Nanotechnology, Marine Biotechnology, Cancer biology. Stem cell research. This facilitates the exchange of students and faculty between the laboratories to learn state-of-the-art techniques.

51. Detail five major strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department

Strengths

- Funding from National l agencies.
- Research publications.
- Well-equipped labs.
- Active research collaboration with national research institutions.
- Facile progression of Ph.D. students

Weaknesses

- Low patent applications
- Students clearing NET/GATE

Opportunities

- Involvement of industry in curriculum development and training for faculty and students.
- Interdisciplinary research with other engineering departments
- Consultancy services
- Extension activities- Mosquito control.

Challenges

- Academy-Industry interaction
- Placements

52. Future plans of the department:

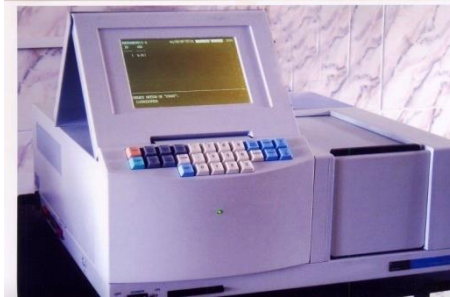
- Introduce short term innovative courses.
- Collaborate with more industries and research institutions.
- Start extension services to students.
- To publish more number of research papers and participation in conferences by both students and staff members.

PHOTO GALLERY

UV-Spectrophotometer



UV-Spectrophotometer



PCR



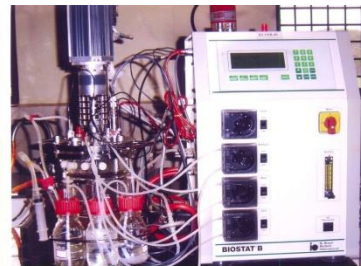
ELISA Reader



Illuminator and Oven



Bioreactor



Membrane Filtration

