

## **Annual Report of PG Department of Biotechnology (2017-2018)**

### **Objectives of the Department**

- **To provide better opportunity to every one for performing their capacity in knowledge and innovative research to compete with the global**
- **To bring advanced knowledge among youth generations and skills of research oriented work based on theoretical knowledge**
- **To motivate students on handling basic research work along with academic curricula**

### **Memorandum of Understanding (MoU)**

- ✓ Department signed MoU with Centre for Bioscience and Nanoscience Research (CBNR), Coimbatore on 8<sup>th</sup> February 2013 for collaborative research and academic programs (Renewed till 2020).
- ✓ Signed MoU with Synkro Max Biotech, Chennai on 2<sup>nd</sup> November 2013 (Renewed till 2019).
- ✓ Signed MoU with CYTXON BIOSOLUTION Pvt. Ltd, Hubli, Karnataka on 26<sup>th</sup> Feb 2017.
- ✓ MoU with KVK, Regional Research Station (ICAR), Brahmavar, Udupi 2017 onwards
- ✓ MoU with PG Dept of Chemistry (Organic Chemistry), Alva's College 2017 onwards
- ✓ CPCRI-ICAR, Kasaragod
- ✓ IISc- CES Bangalore

### **Staff members**

Number of Teaching Faculties - **04** (4 with Ph.D., 2 with M. Phil. and 2 with SLET)

Ph D. Guides - 03

Total number of students – 17+ 09 = 26

Results – During 2017 - 100%

### **Research papers published**

Research articles published by P.G. Department of Biotechnology during June 2017- May 2018: **03** (in International Reviewed Journals)

### **Research Centre**

Number of Research Scholars enrolled under Mangalore University **01** (2017-18), [**04**- 2016-17]

Number of Research Scholars working for Ph.D.: 04 (Tumkur and Bharathiar University) 03

Awarded/Thesis submitted: Thesis submitted - viva date not finalized- 01

### **Ongoing Collaborative research project**

Collaborative project with Nitte Dental College, Deralakatte on Nanotechnology

**Certificate Course - Research Methodology**

**Students : 17**

### **Extension activities**

- ❖ Drinking water quality test
- ❖ Biofertilizer production for Farmer
- ❖ Spawn production and sale

### **Guest Lectures**

+Dr. Manjeshwar Shrinath Baliga, In Charge Head of Research, Mangalore Institute of Oncology, Mangalore, Karnataka, India on “Molecular basis of Cancer and Therapeutics” on 4<sup>th</sup> September 2017 at Alva’s College, Moodbidri.

+ Mr. Santha Kumar, Market Manager, Himedia Laboratories, Bangalore on”PCR and their application” on 15<sup>th</sup> February 2018.

+ Mr. Abhijith Gade, Product Manager in Molecular Biology, Himedia Lab. ,  
Mumbai on “Molecular Biology tools” on 20<sup>th</sup> February 2018.

### **Seminar/conference/workshops attended and paper presented by Faculties and Students**

National Conference -

International -

Poster Presented - 09 (Students)

Paper Presented- 02 (Staff)

### **Served as resource persons:**

- Dr. Rama Bhat P., One- day National Conference on “Forensic Biotechnology” organized by CBNR, Coimbatore on 21<sup>st</sup> July 2017.
- Dr Raghavendra Rao B. served as resource person in a training program on “Mushroom Cultivation “organized by State Horticulture Department at Kokkarne and Padu Kalathur, Kaup on 30<sup>th</sup> and 31<sup>st</sup> January 2018 respectively.
- Dr Raghavendra Rao B. served as resource person and delivered a lecture on Biotechnology in “Ayurveda Research” for MD Ayurveda students at Muniyal Ayurveda College, Manipal on 21<sup>th</sup> April .2018.

### **Seminar/Conferences Organized**

*Alumni sponsored International Conference* organized in association with Karnataka State Pollution Control Board, Mangalore on “Recent Vistas in Science and Technology & its Relevance to Biological Sciences” held on 02/03/2018 at Kuvempu Hall, Vidyagiri, Moodbidri

#### *Biotechnology Alumni*

Dr. Nandini K., Scientist, ISRO, Bangalore

Dr. Sudarshan Kini, PDF, MIT, Manipal

Dr. Arun NL, SNU, Singapore

Dr. Kiran Kumar Shetty, Associate Professor, Vadodara/Chhattisgarh

Dr. Shama Rao, RA, Stem Cell Research Centre, Nitte University

**Workshop organized** Two days Workshop on “Remote Sensing and Applications” organized by ISRO on 2-3 November 2017 at ISRO, Bangalore

**One-day hands on training/workshop** to B.Sc. Microbiology students on rDNA technology and TLC on 2<sup>nd</sup> April 2018.

**Involved in**

**Alva’s Vijnanasiri – 30 Nov- 3 Dec 2018: Science model exhibition**

**Work shop / seminar attended**

Two day Lecture Workshop organized by Botany Department with CPCRI, Kasaragod on 27-28 September 2017 [Faculties and students]

One-day “Biodiversity Documentation Workshop“ organized by Department of PG Zoology on 26<sup>th</sup> September 2017 [Faculties and students]

Workshop on “Research Methodology “ Alva’s- IISc - CES on 13<sup>th</sup> October 2017 [Faculties and students]

One-day Workshop on “Food safety: Issues and Concerns” organized by Nitte University Centre for Science Education and Research, held at Paneer Campus, Deralakatte on 16<sup>th</sup> October 2017 [ 05 Students]

Two days Lecture Workshop on “Nanotechnology” at YIT , Thodar on 30-31 October 2017 [2 Faculties]

Two - days “Lecture Workshop on Biotechnology” at Department of Biosciences, Mangalore University on Nov 9-10 2017 [ 06 Students]

Two days Workshop on “Remote Sensing and Applications” organized by ISRO on 2-3 November 2017 at ISRO, Bangalore [All staff and students]

## **Institution/Industry visit**

## **Paper presentation**

### **As Resource Person**

### **Poster presentation**

Fouzana Nikhath and Rama Bhat P., 2018. Phytochemical studies and antimicrobial activity of *Selaginella delicatula* in “Recent Vistas in Science and Technology & its Relevance to Biological Sciences” held on 02/03/2018 at Alva’s College, Moodbidri.

S. Ananya Sirisha, Manjunath. S.S and Rama Bhat P, Assessment methods of solid waste management, “Recent Vistas in Science and Technology & its Relevance to Biological Sciences” held on 02/03/2018 at Alva’s College, Moodbidri.

Bhavyashee P.V. and Raghavendra Rao, B. Plant growth stimulating property of lactic acid bacteria isolated from curds and buttermilk in International Conference on “Recent Vistas in Science and Technology & its Relevance to Biological Sciences” held on 02/03/2018 at Alva’s College, Moodbidri.

Divya Kanimilli and RamaBhat P. Isolation and characterisation of endophytes from *Myristica malabarica* Lam in International Conference on “Recent Vistas in Science and Technology & its Relevance to Biological Sciences” held on 02/03/2018 at Alva’s College, Moodbidri.

Gayathri R. Naik and Raghavendra Rao, B. Isolation and characterization of chitinolytic bacteria from compost in International Conference on “Recent Vistas in Science and Technology & its Relevance to Biological Sciences” held on 02/03/2018 at Alva’s College, Moodbidri.

Kavya , H.H. and Raghavendra Rao, B. Antagonistic and plant growth stimulatory effect of *Trichoderma* in International Conference on “Recent Vistas in Science and Technology & its Relevance to Biological Sciences” held on 02/03/2018 at Alva’s College, Moodbidri.

Nidhi,S., Ramya Rai, M. and Raghavendra Rao, B Study of cellulose decomposers isolated from a partially decomposed wooden log in International Conference on “Recent Vistas in Science and Technology & its Relevance to Biological Sciences” held on 02/03/2018 at Alva’s College, Moodbidri.

Shamsheer and Raghavendra Rao B. Characterization of phosphate solubilising bacteria isolated from tamarind tree rhizosphere in International Conference on “Recent Vistas in Science and Technology & its Relevance to Biological Sciences” held on 02/03/2018 at Alva’s College, Moodbidri.

### **Extension activities**

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### **Students Activities**

Fruit and Vegetable carving and paper craft competition for PG students of Alva’s college, 3<sup>rd</sup> November 2017

**Alva's College Moodbidri**  
**Post Graduate Department of Biotechnology**  
**List of Student Project for Academic Year 2016-18 (On Going)**  
**Not for academic /syllabus**

<b>Sl. No</b>	<b>Names of the student</b>	<b>Project Topic</b>	<b>Guide</b>
1.	Shamsheer M.B. Dilan M.D. Bhavan Boppana Sandeep, Mithun Raj	Isolation of Nitrogen fixers from bamboo rhizosphere	Dr. Raghavendra Rao
2.	Fouzana Nikhath Kavya H.H.	Extraction of glycerol from osmotolerant bacteria	Dr. Raghavendra Rao
3.	Divya Kanimilli Bindupriya Urs K. V.	Phytochemical properties antihelmintic, antimicrobial and antioxidant activities of <i>Mukia maderaspatana</i> ( L. ) M. Roemer	Dr. Rama Bhat P
4.	Bindupriya Urs K.V. Chandana V Moger Gayatri Naik Nidhi N Ankolekar	Synthesis of silver nano – particle from the extract of <i>Punica granatum</i> and its antimicrobial activity	Dr. Jenitta E P
5.	Bhavyashree P. V. Nayana P. Bharathi Naik Manju Chiplunkar	Green synthesis of silver nanoparticles using sweet lime peel and its antimicrobial activity	Dr. Jenitta E P
6.	Nalina K.	Lignocellulose degrading thermophilic bacteria	Dr. Raghavendra Rao
7.	Nikita M. Ghorpade	Phytochemical and pharmacological studies on <i>Diplocylos palmatus</i>	Dr. Rama Bhat P

*Alumni sponsored International Conference on*  
**Recent Vistas in Science and Technology and its Relevance to Biological Sciences**



**Inauguration by Chief Guest Dr. Nandini K Scientist, ISRO (ISAC), Bangalore**



**Welcome address by Dr. Rama Bhat, Convener of International Conference**



**Address by Chief Guest, Dr. Nandini K Scientist, ISRO (ISAC), Bangalore**



**Release of Souvenir Abstract CD by Dr. M. Mohan Alva, Chaiman AEF**



**Presidential address by Dr. M. Mohan Alva, Chaiman AEF, Moodbidri**



**Vote of thanks by Dr. Raghavendra Rao B. Associate Professor PG Biotechnology**



*Alumni sponsored International Conference on*  
**Recent Vistas in Science and Technology and its Relevance to Biological Sciences**  
**Valedictory programme**



Welcome address by Dr. Jenitta EP.,  
Associate Professor PG Biotechnology



Dr. Raghavendra Rao B, Dr. Rama Bhat P., Chief Guest Dr.  
Kiran Kumar N. and Mr. Avinash Holla



First place for oral presentation secured by Vinaya Kumaimari P  
Department of Marine Geology, Mangalore Univeristy



Second place for oral presentation secured by Dr.  
Vishal U. Kalebar of P.C.Jabin College, Hubballi



Kiran Kumar N Shetty, spoke on this occasion



Vote of thanks by Dr. Jayadev K.  
Associate Professor PG Biotechnology



One day hands on training for farmers on small scale Biofertilizers productions and their uses



Institute visit at Calicut and Wyanad during March 19-21 2018





+ Mr. Santha Kumar, Market Manager, Himedia Laboratories, Bangalore on "PCR and their application" on 15<sup>th</sup> February 2018



+ Mr. Abhijith Gade, Product Manager in Molecular Biology, Himedia Lab., Mumbai on "Molecular Biology tools" on 20<sup>th</sup> February 2018.