

**ACHIEVEMENTS OF
DEPT. OF BIOTECHNOLOGY ENGINEERING
(2016-17)**

International Student Internship

A student from Bordeaux-France Ms. Nina Magin Garcia will be joining the Dept. of Biotechnology engineering to do internship from **July 4th 2016- Nov 11th 2016**. She is been sponsored by Indo-French Center for the promotion of Advanced Research (Center Franco-Indian pour la Promotion de la Recherche Advance-CEFIPRA). She carried out internship on a project titled “**Optimization of Bio-oil production from glycerol using *Cryptococcus heveanensis*** under the guidance of **Dr. C. Vaman Rao**.

UG Students Achievements

1. A paper on **Bioethanol Production from Non Edible Oil Seed Cake- A Biodiesel Byproduct by Using *Rhizobium leguminosarum* and *Saccharomyces cerevisiae* Co-culture** was presented by Chandrika Tantry, Sowjanya K Poojary, Shreedhanya of VII semester at ***International Conference on Agricultural Science and Food Technologies for sustainable productivity and Nutrition Security*** organized by University of Agricultural Science, Bengaluru on **25th – 27th Aug 2016**. The research project was carried out under the guidance of Mr. Venkatesh Kamath, Asst. Professor and Dr. C. Vaman Rao, Professor Head.
2. A paper on **Phytochemical Screening, Biosynthesis of Cu²⁺ Nanoparticles using Areca catechu Extract and a Study on It's Antibacterial Activity** was presented by Bhavana, P., Priyanka, H., Anusha, K. G., Chaithra, G. R of VII semester at ***International Conference on Agricultural Science and Food Technologies for sustainable productivity and Nutrition Security*** organized by University of Agricultural Science, Bengaluru on **25th – 27th Aug 2016**. The research project was carried out under the guidance of Ms. Sneha Nayak, Asst. Prof. and Dr. C. Vaman Rao Professor Head.
3. **First Prize** was awarded to a paper on “**Value Added Byproducts from Waste Paper**” presented by Ms. Madhushree, Ms. Maneesha Shetty, Ms. Sravya B. V. and Ms. Shruthi N. Mallya of **V semester** at ***National Conference and Technical Fest (NCETERM – 2016) organized by GM Institute of Technology, Davangere*** on **23rd and 24th Sept. 2016**. The research project was carried out under the guidance of Dr. Anilkumar. H. S.
4. A paper on “**Conversion of waste paper into useful bio-products**” was presented by Ganga Gamana, Melita Rashmi Rebello, Sulakshana Pai of VII semester at ***National Conference on Recent Advances in Chemical, Biochemical and Environmental Engineering (RACBEE-2016)*** held on **1st Oct 2016** at ***SDM College of Engineering & Technology, Dharwad***. The research project was carried out under the guidance of Dr. Anilkumar. H. S.

5. A paper on **“Waste water treatment using shells of marine source”** was presented by Aishwarya J., Megha B.S, Shwetha, Supriya Naik of V semester at *National Conference on Recent Advances in Chemical, Biochemical and Environmental Engineering (RACBEE-2016)* held on *1st Oct 2016* at *SDM College of Engineering & Technology, Dharwad*. The research project was carried out under the guidance of Dr. Anilkumar. H. S.
6. A paper on **“Production of eco friendly adhesive from jackfruit seed”** was presented by Maneeshi Shetty, Candida M.F., Suraksha P., Nireeksha Karkera of V semester at *National Conference on Recent Advances in Chemical, Biochemical and Environmental Engineering (RACBEE-2016)* on *1st Oct 2016 held at SDM College of Engineering & Technology, Dharwad*. The research project was carried out under the guidance of Mr. Vinayaka B Shet.
7. A paper on **“Modelling of microwave assisted coconut leaf acid hydrolysis pre-treatment process for maximum release of reducing sugars”** was presented by Varun C., Aishwarya, Anusha M. Palan, Shama U. Rao of VII semester at *National Conference on Recent Advances in Chemical, Biochemical and Environmental Engineering (RACBEE-2016)* held on *1st Oct 2016 at SDM College of Engineering & Technology, Dharwad*. The research project was carried out under the guidance of Mr. Vinayaka B Shet.
8. A paper on **“Production of fermented fruit juice using unconventional seasonal fruits through batch fermentation”** was presented by Pranita A D’Souza, Shubashree C. Rao, Priyanka A.Naik , Saujanya Vyas, Anusha M. Palan, Belrin Cornelio of VII semester at *National Conference on Recent Advances in Chemical, Biochemical and Environmental Engineering (RACBEE-2016)* held on *1st Oct 2016* at *SDM College of Engineering & Technology, Dharwad*. The research project was carried out under the guidance of Mr. Vinayaka B Shet.
9. Secured **Second Prize** for the paper on **“Bioethanol Production by Co-fermentation of Non Edible Oil Seed Cake and Glycerol Using *Rhizobium leguminosarum* and *Saccharomyces cerevisiae*”** presented by Chandrika Tantry, Sowjanya K Poojary, Shreedhanya,” of VII semester at *National level Students symposium CHEMEXCEL-2016 organized by Department of Chemical Engineering, Bapuji Institute of Engineering and Technology, Davangere* held on *21st Oct 2016*. The project was guided by Dr. C. Vaman Rao. Professor.
10. Secured **Third Prize** for the paper on **“Value added products from crude glycerol obtained as a byproduct of biodiesel”** presented by Varun S, Mahesh A, Savinay, Vjayananda Jedar of VII semester at *National level Students symposium CHEMEXCEL-2016 organized by Department of Chemical Engineering, Bapuji Institute of Engineering and Technology, Davangere* held on *21st Oct 2016*. The project was guided by Dr. Ujwal P, Professor.
11. Secured **First Prize** for the paper on **“Isolation, Purification and Biofilm forming activity of *Lactobacillus rhamnosus* exopolysaccharides”**

- presented by Pranitha D' Souza and Shubhashree Rao of VII semester at *National level symposium CHEMIGNITE-2K16 New Frontiers in Chemical Engineering organized by Department of Chemical Engineering, Manipal Institute of Technology, Manipal* held on 21st – 22nd Oct 2016. The project was guided by Dr. Vidya S. M. Professor.
12. A paper on “**Green synthesis of copper nanoparticles using Areca catechu extract and study on its antioxidant capacity**” was presented by Ms. Bhavna, Ms. Priyanka H, and Ms. Chaitra of VII semester at an International conference “*Sustainable Utilization of Tropical Biomass: Bioproducts, Biocatalysts and Biorefinery (SutB4)*” held at Tamilnadu Agricultural University, Coimbatore, on Nov 17th – 18th 2016. The research project was carried out under the guidance of Ms. Sneha Nayak, Asst. professor and Dr. C. Vaman Rao, Professor and Head.
 13. A poster on “**Systematic protein-protein interaction and pathway analysis of Endophthalmitis**” was presented by Mr. Varun, S and Mr. Vijayananda Jedar of VIII semester at National conference organized by Dept. of Botany and Dept. of PG studies in biochemistry at St. Aloysius College, Mangalore on 27th Jan 2017.
 14. A poster on “**Prevention of Phytophthora on Areca nut plant using iron oxide**” was presented by Ms. Shruthika Shetty, Ms. Dimple C and Ms. Mehmooda Nusreen of VIII semester at *National conference organized by Dept. of Botany and Dept. of PG studies in biochemistry at St. Aloysius College, Mangalore* on 27th Jan 2017. The project work was carried out under the guidance of Dr. Shyam Prasad Sajankila, Associate Professor.
 15. A paper on “**Prevention of Phytophthora on Areca nut plant using iron oxide**” was presented by Ms. Shruthika Shetty, Ms. Dimple C, Ms. Mehmooda Nusreen and Ms. Amrisha Kar of VIII semester was awarded **Second Best Paper Award** at *State Level Paper presentation and Project Model Exhibition (IEINITTE – 2017) held on 11th March 2017 organized by The Institution of Engineers (India) Student Chapter & ISTE Student Chapter held at NMAMIT, Nitte.* The project work was carried out under the guidance of Dr. Shyam Prasad Sajankila, Associate Professor.
 16. Nikshitha and Mahalakshmi C, of VIII SEM presented a paper entitled “Production of Biopolymer (Pha- Polyhydroxy Alkanoate) and Polyethylene Plastic Degradation Using Solid Waste Microbes” at a *National Conference on Technologies for Green Mobility – NCTGM 2K17 during 10th 11th March 2017, organized by the Department of Automobile Engineering- Bannari Amman Institute of Technology, Sathyamangalam, Tamilnadu.* The project was carried out under the guidance of Dr. Chetan D. M. Assoc. Professor.

Placements:

1. **Biocon** - 2
2. **Omics International**, Hyderabad – 9 students are placed
3. **Infosys** – 2 students are placed
4. **Accenture** – 3 students are placed

Summer Internship for UG students

1. **Biocon** – 1
2. **Dakshina Kannada Milk Marketing Federation Union** – 3

3. United Breweries, Mangalore- 2
4. Provimi Nutrition, Bengaluru – 1
5. Horizon Ventures, Bengaluru – 1
6. Dept. of Biochemistry, Mysore University – 1
7. Hafi Biotech, Ernakulum, Kerala - 2

Ph. D Students Achievements

1. A paper on **The Study of Pilot-scale Biodiesel Production Process from Pongamia and Waste Cooking Oil** was presented by Mr. Santhosh Poojary at *12th Annual Session of Students Chemical Engineering Congress, SCHEMCON 2016* organized by **B. V. Raju Institute of Technology, Narasapur, Greater Hyderabad** on **10th – 11th Sept 2016**. The research project was carried out under the guidance of Dr. Ujwal P., Professor and Dr. C. Vaman Rao Professor Head.

Paper Presentation by Lab Assistant

Mrs. Poornima Kunder, Lab assistant, presented a paper titled “Ethnomedicinal Importance of rare family member of Vitaceae, *Cissus elongata* Roxb” at an *Lake 2016: International conference on conservation and Sustainable Management of ecologically sensitive Regions in Western Ghats, The 10th Biennial Lake Conference organized jointly by Energy and Wetlands Research Group Center For Ecological Sciences-Indian Institute of Sciences & Alva’s College and Alva’s Institute of Engineering and Technology Moodbidri* during Dec 28th – 31st 2016.

Ph. D Awarded:

1. Rajesh K. S - NMAMIT (Registered with Nitte Univ) Received CSIR fellowship. Worked under the guidance of Dr. C. Vaman Rao.
2. Vinutha, K - External (Registered with Nitte Univ). Worked under the guidance of Dr. Vidya S. M
3. Pradeepa NMAMIT (Registered with VYU). Worked under the guidance of Dr. Vidya S. M

Full Time Ph. D Thesis Submitted awaiting Viva Voce

1. Dakshayini, K - NMAMIT (Registered with VTU) – TEQIP-II Fellowship of Rs. 16,000/month from 1/10/2013 – 1/12/2014.
2. Sujatha Barangi - NMAMIT (Registered with VTU)

Staff Achievements

1. **Dr. Anil Kumar H. S.**, Associate Professor was awarded **Gold Medal** by **Zoological Society of India** for the **Second best performance** under Senior Scientist Category for the paper presentation on “**Screening of value added products from waste paper through biotechnology**” in the *International Symposium* on

“*Understanding the Molecules of Life in the Era of New Biology*” organized by *Department of Life Science, Davangere University, Shivagangotri, Davangere*, held on *20th Oct – 22nd Oct 2016*.

2. Ms. Sneha Nayak, Asst. Professor, presented a poster paper titled “**Biosynthesis of bimetallic Ag/Au alloy nanoparticles using *Ocimum sanctum* (Krishna Tulsi) leaf extract and evaluation of its antibacterial activity and catalytic reduction of Brilliant blue R250**” in **International Conference on Water (ICW) 2016: From Pollution to Purification**, held on **12th to 15th Dec 2016** at **Mahatma Gandhi University, Kottayam**.

3. Dr. Vidya S.M., presented a paper entitled “**Treatment of infection by functionalized gold nanoparticles prepared by lactic acid bacterial exopolysaccharides**” in the *XV annual meeting of The Society for Free Radical Research-India (SFRR-INDIA-17)* on “*Basic and Applied Aspects of Health, Management using Radiation, Antioxidants and Nutraceuticals and one day school on radiation and redox process in health*” organized by Bio Science group, Bhabha Atomic Research Centre, Mumbai, India, from January 9-12th 2017.

4. Mr. Venkatesh Kamath presented a paper entitled “**Ethanol fuel production from glycerol using *Bacillus cereus***” in the *2nd International Conference on Recent Advancements in Chemical, Environmental & Energy Engineering (RACEE 2017)* held at SSN College of Engineering, Chennai on 23rd – 24th Feb 2017.

5. **Best Paper award** was given to a paper entitled “**Optimization of pretreatment of *Saccharum spontaneum* (Kans grass) biomass for production of alcoholic biofuels**” presented by **Mr. Sandesh K** (coauthored by Ms. Sana Amin, Ms. Harshakiran T. S., Ms. Anju Mariam Prasad and C. Vaman Rao) in the *2nd International Conference on Recent Advancements in Chemical, Environmental & Energy Engineering (RACEE 2017)* held at SSN College of Engineering, Chennai on 23rd – 24th Feb 2017.

6. **Sneha Nayak**, Vinayaka B Shet, Vaman Rao C, Keshav Joshi, “Performance evaluation and emission characteristics of a four stroke diesel engine using green synthesized silver nanoparticles blended biodiesel “, *Proceedings Of International Emerging Trends In Materials And Manufacturing Engineering*, pp.166 NIT, Tiruchirappalli, 10th to 12th March 2017. The paper is going to be published in *Materials Today Proceedings* by Elseviers.

Patent filed

Patent filed (E-101/38057/2016-CHE) on Ethanolic root extract of *Coix lacryma-jobi* as an antidote to snake venom-Molecular docking studies prove inhibition of activity of three finger toxin and phospholipase A2.

Staff Applicants: Dr. C. Vaman Rao; Rajesh K. S; Dr. Bharath; Dr. Ishwar Bhat

Patent filed (E-101/38058/2016-CHE) on Aqueous and ethanolic root extract of *Coix lacryma-jobi* as an antidote to snake venom

Staff Applicants: Dr. C. Vaman Rao, Rajesh K. S., Dr. Ishwar Bhat

Book Published

Dr. C. Vaman Rao

- Immunology-3rd Ed (ISBN-978-81-8487-564-5) Narosa Publishing House, New Delhi
- Immunology-3rd Ed (ISBN 1-84265-253-2) Alpha Science, UK

Dr. Chetan D. M

1. **Key words based: Biology** Multiple Choice Questions (MCQs) For NEET and Other Medical Entrance Examinations. Publisher: New Delhi Publisher, 2017

2. **Chapter wise Biology** Multiple Choice Questions (MCQs) For NEET and Other Medical Entrance Examinations. Publisher: Blue Rose Publisher, 2017.

3. **Chapter wise Chemistry** Multiple Choice Questions (MCQs) For NEET and Other Medical Entrance Examinations. Publisher: Blue Rose Publisher, 2017.

4. **A TO Z Biology, General Multiple Choice Questions (MCQs) for** Staff Selection Commission, Exams like *IAS, IPS, IFS, IRS, NDA*, and for Joint entrance examinations (JEE). **Publisher: Blue Rose Publisher, 2017**

5. **A TO Z Chemistry, General Multiple Choice Questions (MCQs) for** Staff Selection Commission, Exams like *IAS, IPS, IFS, IRS, NDA*, and for Joint entrance examinations (JEE). **Publisher: Blue Rose Publisher, 2017.**

Dr. Ramakrishna B & Dr. Anilkumar H. S.

Fundamentals of Intellectual Property Rights. Notions press.com (2017); ISBN 978-1-946556-31-8

Research Publications

2017

1. Venkatesh Kamath H, Samiyabanu, Krupa M. B, Deepak G. M, and C. Vaman Rao. Ethanol Fuel Production from Glycerol using *Bacillus cereus*. Research Journal of Pharmaceutical, Biological and Chemical Sciences, 84-91, 2017. (Scopus indexed, IF=0.35, SJR = 0.22).
2. Sandesh K., Sana Amin, Harshakiran, T. S., Anju Mariam Prasad and C. Vaman Rao. Optimization of pretreatment of *Saccharum spontaneum* (Kans grass) biomass for production of alcoholic biofuels. Research Journal of Pharmaceutical, Biological and Chemical Sciences, 117-126. 2017. (Scopus indexed, IF=0.35, SJR = 0.22).
3. Vinayaka B. Shet, Varun C, Aishwarya U, Anusha M. Palan, Shama U. Rao, Louella Concepta Goveas, S. Raja, C. Vaman Rao, Ujwal. P. Optimization of reducing sugars production from an agro residue coconut leaflets through Autoclave assisted HCl hydrolysis using Response Surface Methodology, *Journal of Agriculture and Natural Resources* (Elseviers) (Accepted – in Press).

4. Pranita A D'Souza, Priyanka A.Naik, Shubashree C. Rao, Saujanya Vyas, Anusha M. Palan, Belrin Cornelio, Vinayaka B. Shet, C.Vaman Rao, Fermented Fruit Juice Production Using Unconventional Seasonal Fruits Through Batch Fermentation, *Journal of Microbiology, Biotechnology and Food Sciences*, 6: 1305 – 1308, 2017.
5. Santhosh Poojary, C. Vaman Rao, Venkatesh Kamath H. *Scleropyrum pentandrum* (Dennst.) Mabb - oil as a feedstock for biodiesel production – Engine performance and emission studies. *Int. J. of Green Energy*, 14: 279 – 288, 2017.
6. Shyam Prasad Sajankila, Vinayaka B. Shet, Kehsav Joshi, N. Lokeshwari. Effect of blending traditionally synthesized carbon nanoparticles with biodiesel on engine performance. *Materials, Energy and Environmental Engineering*, (DOI 10.10007/978-981-10-2675-1_29), pp 245 – 251.
7. Kiran S. Avadhani, Jyothsna Manikkath, Mradul Tiwari, Misra Chandrasekharl, Ashok Godavarthi, **Shimoga M. Vidya**, Raghu C. Hariharapura, Guruprasad Kalthur, Nayanabhirama Udupa, and Srinivas Mutalik. Skin delivery of epigallocatechin-3-gallate (EGCG) and hyaluronic acid loaded nano-transfersomes for antioxidant and anti-aging effects in UV radiation induced skin damage *Drug Delivery*, 2017; 24(1): 61–74.
8. Pradeepa, Udaya Bhat K, **Vidya S.M** Nisin gold nanoparticles assemble as potent antimicrobial agent against *Enterococcus faecalis* and *Staphylococcus aureus* clinical isolates. *Journal of drug delivery science and technology* 37, 20-27 (2017).
9. Sneha Nayak, Louella C. Goveas and C. Vaman Rao. Biosynthesis of silver nanoparticles using turmeric extract and evaluation of its anti-bacterial activity and catalytic reduction of methylene blue. *Materials, Energy and Environment Engineering*, pp257-265, 2017.

2016

1. **Dakshayini, K.**, Louella, C. G., Vaman Rao, C., Ujwal, P. Optimization of shoot regeneration using leaf explants from *Cichorium intybus* by Box-Behnken Design. *Indian Journal of Advances in Chemical Science*, S1: 179-182, 2016.
10. Pradeepa, Akshay, D. S., Koshi, M., Aswathi, R. H., Akshitha, B., Alvita, B. M., Srinivas, M. and **Vidya S. M.** Multidrug resistant pathogenic bacterial biofilm inhibition by *Lactobacillus plantarum* exopolysaccharide, *Bioactive carbohydrates and dietary fibre*, 8: 7-14, 2016
11. **Dakshayini, K., Vaman Rao, C.**, Karun, A., Bhavyashree, P., **Ujwal, P.** High frequency plant regeneration and histological analysis of callus in *Cichorium intybus*: an important medicinal plant, *J. of Phytology*, **8**: 7-12, 2016.
12. Ojoawo, S. O., **Rao, C. V., Louella Goveas, C.** Bioremediation of Zn, Cu, Mg and Pb in Fresh domestic sewage by *Brevibacterium* sp. *Int. J. of Environ. Res.* **10**: 139-148, 2016.
13. Pradeepa, **Vidya, S. M.**, Mutalik, S., Bhat, K. U., Huilgol, P., Avdhani, K. Preparation of gold nanoparticles by novel bacterial exopolysaccharide for antibiotic delivery. *Life Sci.*, **153**: 171-179, 2016.
14. Rajesh, K. S., Bhat, K. I., **Rao, C. V.** Preliminary phytochemical investigation and anti-venom activity of *Coix lachrymajobi* root extract against *Daboia russelli* venom-induced myonecrosis. *Asian Journal of Pharmaceutical and Clinical Research*. 9: 295-97, 2016.

15. **Vinayaka B. Shet**, Nisha , Manasa Bhat , Manasa , Leah Natasha S. Mascarenhas, Louella C. Goveas, **C. Vaman Rao, Ujwal P.** Optimization of Na₂CO₃ pre-treatment by RSM approach for releasing reducing sugars from cocoa pod shells. *Bioprocessing and Bio Chemical Engineering - Select Proceedings of ICACE 2016* by Springer publication pp 85-91.
16. Paridhi Damle, Deeksha Hegde, Sneha Nayak, C. Vaman Rao. Green synthesis of silver nanoparticles from *Santalum album* tender leaf extract and evaluation of its antioxidant capacity. *Indian Journal of Advances in Chemical Science*, S1: 253-257, 2016.
17. Pradeepa, Vinutha K, Vidya S. M. Probiotic characterization of *Lactobacillus plantarum* isolated from *Sardinella longiceps*. *Current Res. In Microbiology and biotechnology*, 4: 925-932, 2016.
18. **Sandesh, K., Ujwal, P.** Blecita, D. M., Gayatri, D., Kumar, N., Dakshayini, K. Design and fabrication of miniature bubble column bioreactor for plant cell. *Bioprocessing and Bio Chemical Engineering - Select Proceedings of ICACE 2016* by Springer, 163-169.
19. Vrinda Ramakrishnan, **Louella Concepta Goveas**, Niranjana Suralikerimath, Chandrashekar Jampani, Prakash M Halami, Bhaskar Narayan, Extraction and purification of lipase from *Enterococcus faecium* MTCC5695 by PEG/Phosphate Aqueous-Two Phase System (ATPS) and its biochemical characterization, *Biocatalysis and Agricultural Biotechnology*, 2016, 6:19-27 (IF: 0.901).
20. Sharmada N, Apoorva Punja, Sonali S Shetty, Vinayaka B Shet, Louella Concepta Goveas, **C Vaman Rao**. Optimization of pre-treatment of de-oiled oil seed cake for release of reducing sugars by response surface methodology. *Bioethanol*, **2**: 94-102, 2016.
21. Varun C., Aishwarya, Anusha M. Palan, Shama U. Rao, Vinayaka B. Shet, C. Vaman Rao, Ujwal P., Grynal D'Mello. Modeling of microwave assisted coconut leaf acid hydrolysis pretreatment process for maximum release of reducing sugars. *Res J. Chem. Environ. Sci.* 4: 06-11, 2016.
22. Pranita A D'Souza , Shubashree C. Rao, Priyanka A.Naik , Saujanya Vyas, Anusha M. Palan, Belrin Cornelio, Vinayaka B.Shet, C.Vaman Rao. Production of fermented fruit juice using unconventional seasonal fruits through batch fermentation. *Res J. Chem. Environ. Sci.* Vol 4 : 01-05, 2016.

Faculty Development Program:

1. Dr. Anilkumar H. S, Assoc. Professor, participated faculty development program on Biology for Engineers carried out under Continuing Education & Quality Improvement Program (CE & QIP) on conducted by IIT-Mumbai from June 6th – 11th 2016.
2. Ms. Harshitha J, Asst. Professor, participated in faculty development program carried out under Continuing Education & Quality Improvement Program (CE & QIP) on Modern Biophysical Techniques conducted by IIT-Mumbai from Dec 15 – 19, 2016.

Faculty development Program conducted: A three day National level Faculty Development program on “**Optimization Techniques**” funded by TEQIP was conducted on Jan 23rd to 25th 2017.

National Level Student Symposium – “PARICHAY – 17” was organized on 18th Feb 2017 on a theme “Challenges in Biotechnology from the future perspective of Make – In – India”. There were 17 poster presentations and 12 oral presentations from students of various colleges of Karnataka, Kerala and Tamil Nadu. There were 45 external students participated.

Invited Lectures/talks delivered by staff:

1. Dr. Chetan D. M, Assoc. Professor was invited to deliver a lecture on “Solid waste microflora and its applications” at IDSG Government college - Chikmagalur on 31st January 2017. (As part of Science Club activities).
2. Dr. C. Vmana Rao, Professor & Head was invited to deliver a lecture on “Biofuels as fuels from the future perspective at Dept. of Biotechnology, Manipal Institute of Technology, Manipal on 15th Feb 2017.

MOU’S For Student Internship

1. **SanMed Health care Pvt. Ltd.,** Hyderabad
2. **Essente Health care Pvt. Ltd.,** Bengaluru
3. **Borg Scientific Pvt. Ltd.,** Cehnnai
4. **Provimi Animal Nutrition India Pvt. Ltd.,** Bengaluru
5. **Anthem Bioscience Pvt. Ltd.,** Bengaluru

MOU’S For Research Consultancy

1. **Atrimed Pharmaceuticals Pvt. Ltd.,** Bengaluru
For Research consultancy in nanoparticle mediated therapy for Psoriasis (Dr. Vidya S. M.)
For Research consultancy in drug development (Dr. Bhrath B. R.)
2. **MEC Fuels and Chemicals LLC, Texas, USA – For research consultancy in Biofuel Research.**
3. **Texas Uncycle Bioenergy, Sanjose, Texas, USA,**