

Annual Report

Department of Microbiology 2015-16

Workshop/Seminar organized:

DBT-STAR Training Workshop

Sr. No.	Class	Date	Workshop title	Resource Person, designation, Place of work	No. of students	Organized by
1	T.Y. BSc	11/12/15 and 12/12/15	Biosafety Principles and ELISA Technique	Dr. Gururaj Rao Deshpande, Scientist C, NIV-MCC and Mr. Ojas Kaduskar, Project Assistant (Research), NIV-MCC	30	Microbiology, Dept, MCASC, GK
2	S.Y. BSc	25/06/15 and 26/06/2015	Physicochemical and Microbial Characterization of Soil	Mr. Mihir Thatte, Vaintey Chem Products Pvt. Ltd.	30	Microbiology, Dept, MCASC, GK

Training course conducted:

Sr. no.	Title	Status
1	Certificate Course: “Applied Techniques in Industry and Laboratories” . Coordinator: Dr. Mrs. Kavita Parekh, Assistant Coordinator: Mr. Prasad Deshmane	Sanctioned by UGC; started in academic year (2012-13)

Educational and Industrial Visits:

- 1) Parvati Waterworks Pune by SY.B.Sc. students on 27/01/16 & 28/01/16. They were shown, working of plant, water purification, testing and details of supply.
- 2) Shri Someshwar Sahakari Sakhar Karkhana Ltd., Nira Baramati, Pune and Jubilant Life Sciences Ltd., Nira by M.Sc. II and TY.B.Sc. students on 19/01/16. They were shown fermentation plant, distillery and biogas plant.

- 3) MCC-NCCS, Sai Trinity Building, Pune by MSc I students on 1/10/16. They were shown Automated Gene Sequencers, MALDI & FAME.
- 4) National Centre for Cell Science by MSc II students on 11/09/15. They were shown Fluorescence-activated cell sorting (FACS)
- 5) PMC's Sewage Treatment Plant, at Dr. Naidu Hospital, Pune, by M.Sc. II students. They were shown the Sewage Treatment Plant.
- 6) Agritourism, Baramati by F.Y. B.Sc. on 29/01/16. They were shown agricultural farm, fruit plantation, Nursery, Sericulture, Dairy, Vermiculture, poultry, goat farm, sheep farm, organic fertilizer production, water irrigation system, green house, polyhouse.
- 7) Janakalyan Rakta Pedhi by T.Y. B.Sc. on 5/01/16. They were shown functioning of a Blood Bank: Selection of donor, blood grouping by tube and gel technique, separation and maintenance of blood and its components, Automated ELISA for detection of HBV, HCV, HIV, NAT, disposal of blood and contaminated materials.
- 8) Plant Pathology Department, Indian Agriculture Research Institute, Pune by M.Sc. I students on 24/02/16. They were demonstrated infectivity assay and study of plant virus diseases.
- 9) Agharkar Research Institute by M.Sc.-I students on 11/03/16. They were shown molecular techniques and anaerobic techniques and instrumentation like anaerobic glove box, gassing manifold, gas chromatography.
- 10) Indian Institute of Science Education And Research (IISER) Pune, by TY B.Sc. students on 16/02/16. They were shown instrumentation for biochemistry and biotechnology, ultracentrifuge, FACS, X-ray, PCR, Nanodrop.

Guest lectures: 2015-16

- 1) Dr. Absar Ahmad, Senior Principal Scientist at Biochemical Sciences Division, NCL, Pune had delivered a lecture on "Synthesis of nanoparticles using microorganisms and its applications" on 06/02/15 for M.Sc. II, MSc I, TY B.Sc. students in Microbiology, Dept, MCASC, GK.
- 2) Dr. Yogesh Shouche, Scientist G, MCC-NCCS had delivered a lecture on "Next Generation Sequencing" on 30/09/15 for MSc I students at MCC-NCCS.

- 3) Dr. Santosh Sutar, Assistant Director/Assistant Professor, Yashvantrao Chavan School of Rural Development, Shivaji University, Kolhapur delivered two days lecture on “Non-parametric tests (Run test, Sign test, Wilcoxon’s signed Rank test, Mann-Whitney test) and its problem solving” on 05/09/15 and 06/09/15 for MSc I students at Microbiology, Dept, MCASC, GK.
- 4) Dr. Dheeraj Dhotre, and team, MCC-NCCS delivered a lecture on “Gene Annotation workshop” on 19/10/15 for MSc II students at MCC-NCCS.
- 5) Dr. Leena Yeolekar, Consultant, Serum Institute of India Ltd., Pune demonstrated hands on experiments on “Egg Inoculation Technique” to MSc-I & T.Y.B.Sc. on 08/02/16 at Microbiology, Dept, MCASC, GK.
- 6) Dr. Gururaj Rao Deshpande, Scientist C, NIV-MCC and Mr. Ojas Kaduskar, Project Assistant (Research), NIV-MCC conducted a workshop on “Biosafety Principles and ELISA Technique” on 11/12/15 and 12/12/15 for T.Y. B.Sc. Microbiology and Biotechnology students at Microbiology Dept, MCASC, GK.
- 7) Mr. Mihir Thatte of Vaintey Chem Products Pvt. Ltd. Conducted a workshop on “Physicochemical and Microbial Characterization of Soil” on 25/06/15 and 26/06/2015 for S.Y. B.Sc. Microbiology students at Microbiology, Dept, MCASC, GK

Staff achievements:

1) Mrs. Sneha Ogale:

- 1) **Presented Poster in Two days International Conference** on Innovative Trends in Chemical, Physical and BioSciences (ITCPB-2016), 9th and 10th February, 2016 at Annasaheb Magar Mahavidyalaya, Pune. Abstract published in e-Proceedings with ISSN No.
- 2) Participated in and **presented Poster at National-level Workshop** on ‘Research Based Pedagogical Tools for Teachers of Undergraduate Colleges’, conducted from 10-12 March 2016 by **IISER- Pune**. It was supported by DBT, MHRD, British Council and Newton-Bhabha Fund.

- 3) **Participated in National Conference** on Faunal Diversity: Assessment and Conservation (FDAC-2016), 22nd and 23rd January, 2016. Modern College of Arts, Science and Commerce, Ganeshkhind, Pune.
- 4) Participated in Hands-on training workshop on '**Gene Annotation**' on 19/10/15, organized by **AMI (Pune Unit) and MCC-NCCS**.

5) Publications in peer reviewed journals:

1. **Ogale Sneha, Patel Mansi and Tank Jagruti**

Anti-Microbial Potential of Plant Extracts Against Multi-drug Resistant Uropathogens Int.J.Curr.Microbiol.App.Sci.2015.Special Issue-2: 222-239.

2. **Neelima Kulkarni and Sneha Ogale**, 'ICT in Higher Education: A case study'. Dnyanmay (2015); 1: 50-54.

3. **Ogale Sneha, Nalawade Shweta and Mulla Kajal (2016)**.

"Bioprospecting of Endophytes from Indigenous Medicinal Plants for Plant Growth Promoting Activities and biotechnological Applications". **Abstract for poster published in** e-book of abstracts with ISBN No.

- **Chairperson:** Website Updation Committee.
- **Member of Alumni Association.**
- **Life member** of Association of Microbiologists India.
- **Life member** of Society of Biological Chemists (India).
- **Executive Council member** of Association of Microbiologists India (Pune unit).

2) **Mrs. Anupama Sonawane:**

- 1) Publications in peer reviewed journals:

Anupama Sonawane, Manali Mahajan and Sonali Renake, 'Antifungal Activity of a Fungal Isolates against Pomegranate Wilt Pathogen *Fusarium* Int.J.Curr.Microbiol.App.Sci.2015.Special Issue-2: 48-57.

- 2) Attended **National conference on Faunal Diversity: Assessment and Conesevation FDAC-2016, sponsored by BCUD, Savitribai Phule Pune University, Pune on 22nd and 23rd January 2016.**
 - 3) Organized 15th State Level Microbiological Contest and Microbio Olympiad organized at Shirpur.
 - 4) Life member of Association of Microbiologists India.
 - 5) Member of F.Y.B.Sc. admission committee
- 3) **Dr. Mrs. Neelima Kulkarni:**
- 1) Participated and Completed **Refresher course in Environmental Sciences (Microbiology)** conducted by Department of Environmental Sciences, SPPU and ASC, SPPU during 1st -21st Oct 2015.
 - 2) Attended **National conference on Faunal Diversity: Assessment and Conesevation FDAC-2016, sponsored by BCUD, Savitribai Phule Pune University, Pune on 22nd and 23rd January 2016.**
 - 3) Participated in and **won 1st prize** for poster **presented at International Conference** on 'Innovative Trends in Chemical, Physical and Biosciences (ITCPB 2016) ', organized by Dept. of Microbiology, Annasaheb Magar Mahavidyalaya, Hadapsar Pune, on 9/02/16 and 10/02/16.
 - 4) **Chairperson:** Result analysis Committee.
 - 5) **Chairperson:** NAAC criterion III Committee.
 - 6) **Life member** of Association of Microbiologists India.
 - 7) **Life member** of Society of Biological Chemists (India).

Publications in peer reviewed journals:

4) **Neelima Kulkarni** and **Sneha Ogale**, (2015) 'ICT in Higher Education: A case study'. Dnyanmay; 1: 50-54.

5) **Neelima Kulkarni**, **Yogita Patil** and **Gayatri Sahasrabuddhe** (2016) 'Screening of Actinomycetes for production of anticancer enzyme L- asparaginase' Abstract published in e-book of abstracts. ISBN

4) **Mr. Prasad Deshmane:**

1) **Participated in National Conference** on Faunal Diversity: Assessment and Conservation (FDAC-2016), 22nd and 23rd January, 2016. Modern College of Arts, Science and Commerce, Ganeshkhind, Pune

2) Co-coordinator for Certificate Course: "**Applied Techniques in Industry and Laboratories**".

3) **Incharge SCIENCE ASSOCIATION**

4) **Committee member SWARMADHURI, classical singing competition**

5) **Dr. Kavita Parekh:**

1) **Attended** Gene Annotation workshop on 19/10/15 held by Dr. Dheeraj Dhotre, and team, organized by AMI (Pune Unit) and MCC-NCCS.

2) **Participated in National Conference** on Faunal Diversity: Assessment and Conservation (FDAC-2016), 22nd and 23rd January, 2016. Modern College of Arts, Science and Commerce, Ganeshkhind, Pune.

3) Coordinator for Certificate Course: "**Applied Techniques in Industry and Laboratories**".

4) **Life member** of Association of Microbiologists India.

5) Worked as in-charge of 'Elocution competition committee' during youth week.

6) **Mr. Sougata Ghosh :**

1) **First prize in oral presentation in Third International Conference** on Nanotechnology for Biological and Biomedical Applications (Nano-Bio-Med 2015), Indian Institute of Technology (IIT Bombay), Mumbai, India.

- 2) **Poster Presented in International Conference** of new ideas in cancer – Challenging dogmas, 26th to 28th February, 2016. Tata Theatre, National Centre of Performing Arts, Mumbai.
- 3) **Poster Presentation in National Symposium** on Medical Biophysics, 25th and 26th September, 2015, Department of Physics, University of Pune, Pune.
- 4) **Poster Presentation in National Conference** on Faunal Diversity: Assessment and Conservation (FDAC-2016), 22nd and 23rd January, 2016. Modern College of Arts, Science and Commerce, Ganeshkhind, Pune.

Publications in peer reviewed international journals:

1. **Ghosh, S.,** More, P., Nitnavare, R., Jagtap, S., Chippalkatti, R., Derle, A., Kitture, R., Asok, A., Kale, S., Singh, S., Shaikh, M.L., Ramanamurthy, B., Bellare, J., Chopade, B.A. (2015) Antidiabetic and antioxidant properties of copper nanoparticles synthesized by medicinal plant *Dioscorea bulbifera*. *Journal of Nanomedicine and Nanotechnology*. S6: 007. doi:10.4172/2157-7439.S6-007
2. **Ghosh, S.,** Nitnavare, R., Dewle, A., Tomar, G.B., Chippalkatti, R., More, P., Kitture, R., Kale, S., Bellare, J., Chopade, B.A. (2015) Novel platinum-palladium bimetallic nanoparticles synthesized by *Dioscorea bulbifera* : Anticancer and antioxidant activities. *International Journal of Nanomedicine*.10:1- 4.
3. **Ghosh, S.,** Parihar, V. S., Dhavale, D. D., Chopade, B. A. (2015) Commentary on therapeutic potential of *Gnidia glauca*: A novel medicinal plant. *Medicinal Chemistry*. 5(8):351-353.
4. **Ghosh, S.,** Jagtap, S., More, P., Shete, U. J., Maheshwari, N. O., Rao, S. J., Kitture, R., Kale, S., Bellare, J., Patil, S., Pal, J. K., Chopade, B. A. (2015) *Dioscorea bulbifera* mediated synthesis of novel Au_{core}Ag_{shell} nanoparticles with potent antibiofilm and antileishmanial activity. *Journal of Nanomaterials*. 2015: Article ID 562938.
5. **Ghosh, S.,** More, P., Derle, A., Kitture, R., Kale, T., Gorain, M., Avasthi, A., Markad, P., Kundu, G. C., Kale, S., Dhavale, D. D., Bellare, J., Chopade, B. A. (2015) Diosgenin functionalized iron oxide nanoparticles as novel nanomaterial against breast cancer. *Journal of Nanoscience and Nanotechnology*. 15:1-9.

6. **Ghosh, S.**, Parihar, V. S., More, P., Dhavale, D. D., Chopade, B. A. (2015) Phytochemistry and therapeutic potential of medicinal plant : *Dioscorea bulbifera*. *Medicinal Chemistry*. 5(4): 154-159.

Publications in Conference Proceedings:

1. **Ghosh S.**, Derle A., Kitture R., Kale S.N., Chopade B.A. Promising magnetic nanoparticles functionalized with diosgenin inducing apoptosis against breast cancer. 26th to 28th February, 2016. A conference of new ideas in cancer – Challenging dogmas, Tata Theatre, National Centre of Performing Arts, Mumbai. (Poster presentation) pp. 65.
2. Luikham S., **Ghosh S.**, Chopade B.A. Promising magnetic nanoparticles functionalized with diosgenin as novel anticancer nanomedicine against breast cancer. 26th and 27th February, 2016 National Conference on Innovative Research in Life Science (IRLS), Sinhgad College of Science, Pune. (Poster presentation)
3. Luikham S., Jadhav S.P., Sawant H.S., Ogale S.S., **Ghosh S.** Antimicrobial synergy and antidiabetic activity of *Litchi chinensis* peel extracts. 22nd and 23rd January, 2016. Faunal Diversity: Assessment and Conservation (FDAC-2016). Modern College of Arts, Science and Commerce, Ganeshkhind, Pune.
4. **Ghosh S.**, More P., Kitture R., Kale S., Bellare J., Chopade B.A. Diosgenin functionalized magnetic nanoparticles as novel apoptotic inducers against breast cancer. 1st to 4th December, 2015. Third international conference on nanotechnology for biological and biomedical applications (Nano-Bio-Med 2015), Indian Institute of Technology (IIT Bombay), Mumbai, India. (Oral presentation-Contributory talk).
5. **Ghosh S.**, Jagtap S., More P., Kitture R., Kale S., Bellare J., Chopade B.A. Novel Au_{core}Ag_{shell} nanoparticles synthesized by *Dioscorea bulbifera* as potent biofilm inhibitor and leishmanicidal nanomaterial. 1st to 4th December, 2015. Third international conference on nanotechnology for biological and biomedical applications (Nano-Bio-Med 2015), Indian Institute of Technology (IIT Bombay), Mumbai, India. (Poster presentation)
6. More P., **Ghosh S.**, Kitture R., Asok A., Kale S., Bellare J., Chopade B.A. Biogenic copper nanoparticles as potent α -amylase and α -glucosidase inhibitor with free radical scavenging potential. 1st to 4th December, 2015. Third international conference on nanotechnology for biological and biomedical

applications (Nano-Bio-Med 2015), Indian Institute of Technology (IIT Bombay), Mumbai, India. (Poster presentation)

7. Kitture R., Kale S., More P., **Ghosh S.**, Avasthi A., Chopade B.A. Rutin functionalized Fe₃O₄ for cancer therapeutics. 1st to 4th December, 2015. Third international conference on nanotechnology for biological and biomedical applications (Nano-Bio-Med 2015), Indian Institute of Technology (IIT Bombay), Mumbai, India. (Poster presentation)

8. Kitture R., Avasthi A., **Ghosh S.**, Kale S., Chopade BA. Synergistic effect of iron oxide (Fe₃O₄) upon conjugation with rutin for bio-applications. National Symposium on Medical Biophysics, 25th and 26th September, 2015, Department of Physics, University of Pune, Pune. (Poster presentation) pp. 85.

Member of Editorial Board/Reviewer's Team

- 1) International Journal of Advances In Engineering Research (IRA Publications).
- 2) International Journal of Research in Science and Technology (IRA Publications).
- 3) Chemotherapy Research and Practice (Hindawi Publications)
- 1) Arabian Journal of Chemistry (Elsevier).

Social Activities :

- 1) Organized Republic Day celebration with street children – Food and cloth distribution, painting and learning initiatives on 26th January, 2015 at Pune University Signal.
- 2) Organized Toys from Trash workshop with the street children on 25th December, 2015 at Pune University Signal.
- 3) Delivered Lecture on “Benefits of organic farming and potential of medicinal plants as complementary and alternative medicine” On 25th and 26th April, 2015 at Pani Panchayat, Saswad, Maharashtra.

7) Gauri Bhagat

1) Participated in National Conference on Faunal Diversity: Assessment and Conservation

(FDAC-2016), 22nd and 23rd January, 2016. Modern College of Arts, Science and Commerce,

Ganeshkhind, Pune.

- 2) Co-Coordinator for Certificate Course: **“Applied Techniques in Industry and Laboratories”**.
 - 3) Organized 15th State Level Microbiological Contest and Microbio Olympiad organized at Shirpur.
 - 4) **Class teacher of SYBSc 2015-16 class**
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- 8) Dr. Manasi Tukdeo
 - 1) **Participated in National Conference** on Faunal Diversity: Assessment and Conservation (FDAC-2016), 22nd and 23rd January, 2016. Modern College of Arts, Science and Commerce, Ganeshkhind, Pune.
 - 2) Participated in and **won 1st prize** for poster **presented at International Conference** on ‘Innovative Trends in Chemical, Physical and Biosciences (ITCPB 2016)’, organized by Dept. of Microbiology, Annasaheb Magar Mahavidyalaya, Hadapsar Pune, on 9/02/16 and 10/02/16
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- 9) Mrs. Gauri Dalal
 - 1) Member for departmental-level committee for activities under Annual Science Exhibition, ‘Anubhuti’

STUDENT ACHIEVEMENTS :

1	Ms. Yogita Patil and Ms. Gayatri Sahasrabuddhe	M.Sc. II, Microbiology	Best Poster Award in Two days International Conference on Innovative Trends in Chemical, Physical and BioSciences (ITCPB-2016), 9 th and 10 th February, 2016 at Annasaheb Magar Mahavidyalaya, Pune
2	Ms. Anindita Karkhanis	M.Sc. II,	Best Poster Award in Two days

		Microbiology	International Conference on Innovative Trends in Chemical, Physical and BioSciences (ITCPB-2016), 9 th and 10 th February, 2016 at Annasaheb Magar Mahavidyalaya, Pune
3	Mr. Soching Luikham	T.Y.B.Sc. Microbiology	Won First Prize in poster presentation at National Conference on Innovative Research in Life Science (IRLS) at Sinhgad College of Science, Pune organized on 26 th and 27 th February, 2016
4	Mr. Soching Luikham	T.Y.B.Sc. Microbiology	Won First Prize in poster presentation at National Conference on Faunal Diversity: Assessment and Conservation (FDAC-2016) at Modern College of Arts, Science and Commerce, Ganeshkhind, Pune on 22 nd and 23 rd January, 2016.
5	Ms. Pranali Mehre	F.Y. B.Sc. Microbiology	Won best poster award at 15 th State Level Microbiological Contest and Microbio Olympiad organized at Shirpur.

- The annual Science Exhibition '**Anubhuti**' was organized on 11th January 2016. Students from science departments participated in projects, models, posters, student presentations and rangoli & salad decoration competitions based on scientific themes.

PROJECT COMPETITION (2015-2016)				
S.NO.	NAME OF PROJECT	NAME OF PARTICIPANTS	CLASS	REMARK
1	Microbial Art	Tejas Chauhan Mahesh Chaudhari Shubham Barmukh Rohit Diwate	S.Y.B.Sc.	
2	Mitosis	Nilesha Bhosale Pooja Gawali	F.Y.B.Sc.	

		Pooja Pathak Priyatosh Chaturvedi		
3	Drinking water Analysis	Kishori Joshi Trupti Chavan Pradnya Londhe Kajol Gawali Reshma Shinde	S.Y.B.Sc.	
4	Antidiabetic and antimicrobial activity	Soching Luikham Sharvari Jadhav Harshada Sawant	T.Y.B.Sc.	
5	Lens Solution	Ashwini Patil Pradnya Ingale	T.Y.B.Sc.	
6	Antimicrobial activity of Soaps and detergents	Hemangi Deo Rasika Kulkarni Pranali Meher	F.Y.B.Sc.	
7	Antimicrobial activity of Coriander, Cloves and Hibiscus	Gauri Tungikar Bhakti Kavitar Aishwarya Chhatre Sakshi Londhe	F.Y.B.Sc.	

Poster Competition:

POSTER COMPETITION (2015-2016)				
Sr.No.	Name of the Poster	Name of the Participants	Class	Remark
1	Applications of Yeast and Fungi	Mrunali Kamble Ratna Pal	F.Y.B.Sc	
2	Drugs from endophytic fungi	Anindita Karkhanis Nikita Patil Iqbal Siddiqui	M.Sc II	
3	Waste to drive	Hanuman Dighole	M.Sc I	
4	Biofilm	Rucha Datar Yogita Patil Anusha Priya	M.Sc.II	1 st Prize at College level

Science Exhibition (2015-16):- Rangoli

Sr.No.	Theme/Title	Name of Participants	Class	Remark
R1	Micromonster	Ratna Pal Mrunali Kamble Manisha Sharma Deepa Chauhan Akanksha Sharma	F.Y.B.Sc	3 rd Prize at Departmental level
R2	Applied science	Anuja Patil Krutika Lonkar	M.Sc.II	Prize for Best Innovative Idea, 1 st prize in Traditional Rangoli at College level
R3	Replication of DNA	Snehal Dixit Pranita Sahasrabudhe Mrudul Sutar	M.Sc-II	1 ST prize at Departmental level
R4	Microbial diversity	Nikhil Joshi	M.Sc.I	2 nd Prize at Departmental level, 1 st Prize in Theme based Rangoli at College level;
R5	Structure of ATPase	Priyanka Mangale Pratibha Dohare Varsha Deshmukh Prathamesh Parab	T.Y.B.Sc.	
R6	Microscope	Pradnya Bhadale Priyanka Nalawade	F.Y.B.Sc.	
R7	Immunology	Kajal Mehetre Mrunali Deshmukh	M.Sc.I	
R8	Antibiotic resistance	Sharda Najan Rupali Lende	T.Y.B.Sc.	
R9	Influenza virus	Komal Kaware Sonali Nichit	T.Y.B.Sc.	2 nd Prize at Departmental level

R10	Tooth enamel	Pradnya Londhe	S.Y.B.Sc.	
R11	Structure of HIV	Nandini Suryawanshi Kishori Joshi	S.Y.B.Sc.	3 rd Prize at Departmental level
R12	Microscopic lens	Prajakta Hande Priyanks Kanhurkar	S.Y.B.sc.	
R13	Prokaryotic cell	Kajol Gawali Trupti Chavan	S.Y.B.Sc.	
R14	Bacteriophage	Vidya Jadhav Neelam Dholani Deepa Garia	S.Y.B.Sc.	

(2015-2016):- Salad decoration

Sr.No.	Theme/Title	Name of Participants	Class	Remark
S1	Fermentor	Nihal Chauhan Sonali Nichit	T.Y.B.Sc.	
S2	Autoclave	Neha Vaidya	M.Sc.I	1 st Prize at Departmental level
S3	Animal cell	Apoorva Joshi Gayatri Sahastrabuddhe	M.Sc.II	2 nd Prize at Departmental level

(2015-16):- Models

Sr.No.	Theme/Title	Name of Participants	Class	Remarks
1	Biofuel cell	Sharda Najan Rupali Lende Nikhil Kudale	T.Y.B.Sc.	
2	Fermentor	Shrikant Pawar Omkar Kholam Shubham Hiwale	F.Y.B.Sc.	3 rd Prize at Departmental level
3	Ebola Virus	Nilam Kalbhor Nandini Suryawanshi Surbhi Mishra Priyanka Kanhurkar Prajakta Hande	S.Y.B.Sc.	2 nd Prize at Departmental level
4	Working model of Flagella	Prathamesh Parab Pratibha Dohare	T.Y.B.Sc.	

		Varsha Deshmukh Priyanka Mangale		
5	Model on Wine production	Karan Singh Yadav Preeti Sawarikar Rucha Sawaikar	M.Sc.I	1 ST Prize at Departmental level
6	Bioluminescence	Kajal Sutar Pooja Ghodekar Monali Sable	T.Y.B.Sc.	
7	Quorum sensing for Development of Competence in Gram positive bacteria	Hardik Shah Rashmi Ahire	M.Sc.I	
8	DNA Replication model	Vidhya Jadhav Neelam Dholani Deepa Garia	S.Y.B.Sc.	

Anubhuti: Total number of participants:- 2015-2016

- 1) Projects = 7(26 students)
- 2) Posters = 4 (9 students)
- 3) Models = 8 (26 students)
- 4) Rangoli = 14 (33 students)
- 5) Salad decoration =3 (6 students)

Total number of participants = 100 students

II) UGC- Career Oriented Course:

The Department of Microbiology, Modern College of Arts, Science and Commerce, Ganeshkhind, Pune-16 offered an UGC sponsored Career Oriented Certificate Course in “**Applied Techniques in Industry and Laboratories**”. The syllabus for the same was designed as per UGC guidelines of 20 credits of 15 hours each of which 8 were for field work/project/training. This syllabus was approved by University of Pune. This is the fourth consecutive year of the course with 20 students of T.Y.B.Sc Microbiology who have opted for this course.

The objectives of this course were to bridge the gap between academia and industry, to impart career and market oriented training, to impart soft skills and entrepreneurship skills and to empower students and increase their employability.

The core curriculum of the course was based on three papers:

- I. Techniques in Pathology Laboratories and Blood Banks**
- II. Applied Techniques in Industries**
- III. Practicals**

Lectures and Practicals were conducted by experienced resource persons from industry and laboratories and internal staff.

The highlights of the course are:

- Practical and theoretical training by experts from industry and academics.
- Hands on Training in laboratories: **Memorandum of Understanding (MOU)**

A MOU was signed on 18/9/2012 with Janakalyan Blood Bank for a period of five years for hands on training program to increase employability of students. Students received a **work experience certificate** for the same from Janakalyan Blood Bank.

- A training on in Food and Water analysis was carried out by Kulkarni Laboratories Quality Management Services

Examinations are conducted and a joint certificate is awarded to the students with name of University of Pune and Modern College, Ganeshkhind. Placement assistance will be offered to students under this course.

Anubhuti – 2016

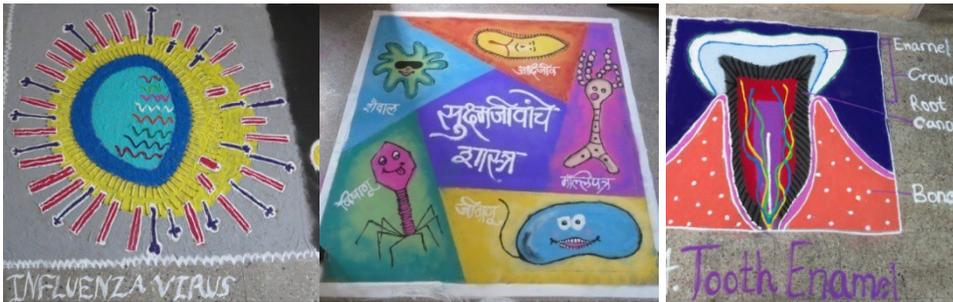
Salad decoration :



Models :



Rangoli :



Demonstration to school children :



Social activities of Department of Microbiology :

Mrs. Sneha Ogale and Mrs. Trupti Kulkarni had organized a visit to an orphanage called Matoshri for painting and food distribution activities along with the M.Sc. Part I microbiology students like Ms. Priyanka Parate, Mr. Tanay Bhagwat, Ms. Rucha Datar, etc.



Mr. Sougata Ghosh Organized Republic Day celebration with street children – Food and cloth distribution, painting and learning initiatives on 26th January, 2015 at Pune University Signal with Mr. Akshay Joshi (Alumni, M.Sc.Microbiology), Ms. Namrata Deo (Alumni, M.Sc.Microbiology), Mr. Hardik Shah (Student, M.Sc. I, Microbiology).



Mr. Sougata Ghosh organized Toys from Trash workshop with the street children on 25th December, 2015 at Pune University Signal with M.Sc. Part I microbiology students like Mr. Hardik Shah (Student, M.Sc. I, Microbiology) and Ms. Rashmi Ahire. The article was published in Times of India on 26th December, 2015.



hard for me to face her. But I was focused on every service game, in the opening game, but broke Kamenskaya to level 1-1. Kamenskaya scored from three

year. "It was good to end the year on a high," she said.

great support to them," he added.

players taking part in the tournament," he said.

Professor's Christmas class with street children

PARTH WELANKAR
PUNE, DECEMBER 26

A GROUP of street children had a special Christmas party on Friday thanks to the initiative of Pune Smile Club. Celebrating

'Christmas for a Cause', Sougata Ghosh, an Assistant Professor with Modern College, took to the streets on the festive day to spread cheer among the less fortunate. The party was held under the University Square flyover. A year ago, Ghosh floated the club with students from his college. Gradually, students from other schools and colleges too got associated with him.

Hardik Shah, studying M.Sc at Modern College, and part of the group, said, "We went near the location a day prior to Christmas to see whether street children were present. The next day before we reached there, they had already cleaned a small place under the flyover for us to celebrate and were waiting to welcome us."

"The students contributed from their pocket money with which we bought chocolates and fruits. After enjoying the food, we also played the game 'Toy from Trash'. The students prepared various objects from matchbox sticks. To our surprise, traffic cops too joined the small party," said Ghosh.

Mr. Sougata Ghosh delivered a lecture on “Benefits of organic farming and potential of medicinal plants as complementary and alternative medicine.” On 25th and 26th April, 2015 at Pani Panchayat, Saswad, Maharashtra to spread awareness among the farmers on scientific farming.

