#### 2015-2016

#### **TEACHING AND LEARNING**

## Short term courses attended by faculty members

- Dr. Lolly Jain -Microbiology
- Ms. Hemangi Kotibhaskar- Biotechnology
- Mr. Jayesh Bhagat- Biotechnology

#### **TEACHERS PERSUING Ph.D.**

- Soniya Shetty- Microbiology
- Supriya Janabandhu- Botany
- Prashant Shah Statistics
- Subhash Krishnan-Mathematics
- Jitendra Pendharkar- Physics
- Smita Survase-Physics
- Makarand Niphadkar-Mathematics
- Shreya Patil-Zoology
- Monika Lodha- Commerce
- Chetan Jiwani-Commerce
- Bharati Makhijani- Commerce
- Sachin Achrekar- Commerce
- Manisha Damle-Accountancy
- Hemangi Kotibhaskar-Biotechnology
- Shabib Khan- Microbiology

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#### **TEACHERS COMPLETED Ph.D.**

• Afsar Ali- Chemistry

### STUDENTS COMPLETED Ph.D.

- Parag Pednekar- Chemistry
- Kandalgaonkar Botany

# **Placements:**

TCS Interview on 12/01/2016

	THE VIEW ON 12/01/20	1	1		T	
C	Name of the	Class Messes	Name of the	Laining		
Sr.	Name of the	Class/Year of	Name of the	Joining	Desirentia	
No.	student	passing	firm/company	firm/company Date/Year Designatio		
	Microbiology		Τ	1	1	
	Mr.Nirvan	T.Y.B.Sc.	Tata Consultancy	Selected	Business	
	Bhawar		Services		Processing	
	Ms.Manali Mehta				services	
1	Ms.Mansi Kaushal					
	Biochemistry	T	Τ=		1	
2	Ms. Shruti Jagtap	M.Sc.	Taj Hotel	10/06/2015	Trainee in	
					Food	
					Microbiology	
	Statistics				department	
3		TVDCC (2014)	Winro	2014	IT Engineer	
3	Nitin More	TYBSC (2014)	Wipro	2014	IT Engineer	
	Lalit Kothawale	TYBSC (2007)	Wills Processing	2010	Senior	
4			Services		Associate	
	Nutraceuticals					
5	Pooja Mahajan	2015				
6	Mona Mehta	2015	ReeLabs	May 2015		
7	Sunny Koli	2015	Enviro Care	01/07/2015	Food Analyst	
8	Tejal Velhal	2015	Reliable Labs	July 2015		
9	Parthav Pathare	2015	Meyer Organics	August, 2015	Dept. Food	
			Thane, Wagle		Marketing	
			Estate			
10	Tanvi Jethva	2015	Padmaja Labs	August, 2015	Food Analyst	
			Sanpada			
11	Ms.Priya	2015	Softe sule Mulund	September,	Food/ QC	
	Chandran			2015	analyst	
12	Ms.Priyanka Parab	2015	AEPI Source, Lower	November,	Medical Coder	
			Parel	2015		
13	Ms.Priya Pillai	2015	G.S.Shetty	November,	Teacher	
			International	2015		
			School			

	INFORMATION TEC	HNOLOGY			
14	Ms.Jailataha Iyer	2014	L & T Infotech	2014	Trainee
15	Ms.Pranaya C.	2014	L & T Infotech	2014	
16	Mr.Nitesh Singh	2014		2014	
17	Mr.Aadil Khan	2016	L & T Infotech	September, 2015	
18	Ms.Afreen Khan	2016	L & T Infotech	September, 2015	
19	Ms.Sayali Joshi	2016	L & T Infotech	September, 2015	
20	Ms.Shraddha Madye	2016	L & T Infotech	September, 2015	
21	Mr.Suraj	2016	L & T Infotech	September, 2015	
22	Ms.Amruta Yadav	2016	L & T Infotech	September, 2015	
23	Mr.Anil Sahu	2016	L & T Infotech	September, 2015	
24	Mr.Harsh Trivedi	2016	L & T Infotech	September, 2015	
25	Ms.Hetal Rajgor	2016	L & T Infotech	September, 2015	
26	Ms.Indrani Sengupta	2016	L & T Infotech	September, 2015	
27	Ms.Khushbu Khanna	2016	L & T Infotech	September, 2015	
28	Ms.Komal Jadhav	2016	L & T Infotech	September, 2015	
29	Ms.Nisha Singh	2016	L & T Infotech	September, 2015	
30	Mr.Rahul Goel	2016	L & T Infotech	September, 2015	
31	Mr.Rushabh Tiwari	2016	L & T Infotech	September, 2015	
32	Ms.Shraddha Mishra	2016	L & T Infotech	September, 2015	
33	Ms.Subhashini Ray	2016	L & T Infotech	September, 2015	
34	Mr.Zeeshan Khan	2016	L & T Infotech	September, 2015	
35	Mr.Zulfikar Chamdawala	2016	L & T Infotech	September, 2015	

# Workshops / Conferences / Seminars/ Talks attended

Sr No	Name Micro	Conference / Workshop /Seminar	Title	From	Venue	Local / National / Internatio nal / State
1	Dr.Lolly Jain	Workshop	Understanding the IMC Ramakrishna Bajaj National Quality Award Criteria for	22/4/2015 - 24/4/2015	Walchand Hirachand Hall, 4 <sup>th</sup> floor, Indian Merchant	National

2	Mr.Shabib Khan	Workshop	performance Excellence and writing IMC RBNQA Application Report Workshop on Techniques in Molecular Biology	24/06/2015 to 25/04/2015	s Chamber Churchgat e Neutraceu tical Lab K.J.Somaiy a Engineerin g Satellite Building	Local
3	Dr.Unnati Padalia	Workshop	VITEK -2 and Advance Phase Contrast Microscope	09/09/2015 to 10/09/2015	Karmveer Bhaurao Patil College, Vashi	Local
4	Dr.Lolly Jain	Workshop	Biostatistics in Teaching and Research	04/09/2015 to 05/09/2015	D.G.Rupar el College of Arts, Science	National
5	Dr.Lolly Jain	Workshop	VITEK-2 and Advance Phase Contrast Microscope	07/09/2015 to 08/09/2015	Karmveer Bhaurao Patil College, Vashi	Local
6	Ms. Soniya Shetty	Conference	Biomarkers for Radiation Exposure and Cancer	1/8/2015	University of Mumbai organized by	Internatio nal
7	Mr.Shabib Khan	Workshop	Basic Techniques of Animal Tissue Culture	26/8/2015	Dept.of Biotechno logy G.N.Khals a College, Matunga	Local
8	Mr.Shabib Khan	3 day workshop	Techniques in Molecular Diagnostics	12/8/2015 to 14/08/2015	SIES College, Sion	Local
9	Mrs.Hemlatta Chakraborty	2 day workshop	VITEK – 2 and Advance phase contrast microscope	7/9/2015 to 08/09/2015	Karmveer Bhaurao Patil College Vashi	Local

Mrs. Hemlatta Chakraborty							
Dr.Lolly Jain	10	Mrs.Hemlatta	SBB lecture	Innovations in	31/10/2015	D.Y.Patil	Local
Series Bionanotechn ology Biotechno logy and Bioinform atics D.Y.Patil University  12 Mrs.Shailaja Girishankar Facching Learning and Evaluationin Higher Education  13 Mr.Shabib Khan State Level Khan Microbioly mpiad microbiolympia ad Mr.Shabib Khan State Level Microbiolympiad microbiolympia do Mr.Shabib Khan State Level Microbiolympiad microbiolympia do Mr.Shabib Khan State Level Microbiolympia Mr.Shabib Khan Mr.Shabib Kha		Chakraborty	series			•	
ology logy and Bioinform atics D.Y.Patil University    12 Mrs.Shailaja Girishankar Seminar Innovations in Teaching Learning and Evaluationin Higher Education    13 Mr.Shabib Khan State Level Khan Microbioly mpiad    Mr.Shabib Khan State Level Microbiolympia ad    Mr.Sha	11	Dr.Lolly Jain	Lecture	Innovations in	31/10/2015	School of	Local
Bioinform atics   D.Y.Patil   University			Series	Bionanotechn		Biotechno	
12   Mrs.Shailaja   Girishankar   Seminar   Innovations in Teaching Learning and Evaluationin Higher Education   Scientific writing   Mr.Shabib   State Level Microbiolympia ad   Mr.Shabib Khan   State Level Khan   Mr.Shabib Khan   State Level Khan   Mr.Shabib Khan   State Level Khan   Mr.Shabib Khan   Mr.Shabib Khan   State Level Khan   Mr.Shabib Khan   Mr.Sha				ology		logy and	
D.Y.Patil University   D.Y.Patil University   D.Y.Patil University   D.Y.Patil University   University   SIES   College, Sion   Sies   D.Y.Patil University   D.Y.Patil U						Bioinform	
Mrs.Shailaja   Girishankar   Seminar   Innovations in Teaching   Learning and Evaluationin   Higher Education						atics	
Mr.S.hailaja   Girishankar   Seminar   Teaching   Learning and   Evaluationin   Higher   Education   Microbiolym   Microbiolym   mpiad   Mr.Shabib   Khan   State Level   Microbiolym   mpiad   Microbiolym   Microbiolympia   Microbiolympia   Microbiolympia   Microbiolym   Microbiolympia   Microbiolympia   Microbiolympia   Microbiolym   Microbiolympia   Microbiol						D.Y.Patil	
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Evaluationin Higher Education  13 Mr.Shabib Khan  Seminar IQAC One Day Seminar on Scientific writing  14 Mr.Shabib Khan  Microbioly mpiad  Mr.Shabib Khan  Mr.Shabib  Mr.Sh		Girishankar		_	27/2/2016		
Higher Education  13 Mr.Shabib Seminar IQAC One Day Seminar on Scientific Writing Commerce  14 Mr.Shabib Khan Microbioly mpiad Microbiolympia ad  Mr.Shabib Khan State Level Microbiolympia Ad  Mr.Shabib Khan				_		Sion	
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Commerce   State Level   Final Round of   State Level   Microbioly mpiad   State Level   Microbiolympi ad   State Level   Microbiolympia d   State Level   Microbiolympia   State Level   College   Shivpur   State   College   Shivpur							
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Mr.Shabib   State Level   Microbioly   mpiad   microbiolympi   ad   27/01/2016   R.C. Patel   College   Shivpur   ad   State Level   Microbiolympi   ad   27/01/2016   R.C. Patel   State   College   Shivpur   Shivpur   State Level   College   Shivpur   State Level   Microbiolympia   Microbioly							
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Mr.Shabib Khan   State Level   Final Round of state level   microbiolympia d   Commerce			· ·			_	
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piadmicrobiolympia dShivpurCommerce15Dr.Smita ParanjapeWorkshop evaluationStudents' evaluation20/07/2015 20/07/2015KJSSC KJSSCLocal Local Evaluation16Ms. Shilpa SawantWorkshop evaluationStudents' evaluation20/07/2015 Students' EvaluationKJSSC EvaluationLocal College17Dr.Smita ParanjapeWorkshop PreparationAPI & CAS Preparation8/8/2015 CollegeBirla College		Mr.Shabib Khan	State Level	Final Round of	27/01/2016	R.C. Patel	State
Commerce  15 Dr.Smita Workshop Students' 20/07/2015 KJSSC Local evaluation  16 Ms. Shilpa Workshop Students' 20/07/2015 KJSSC Local Sawant evaluation  17 Dr.Smita Workshop API & CAS 8/8/2015 Birla Local Paranjape Preparation College						•	
Commerce15Dr.Smita ParanjapeWorkshop evaluationStudents' evaluation20/07/2015 20/07/2015KJSSC KJSSCLocal Local Evaluation16Ms. Shilpa SawantWorkshop evaluation20/07/2015 evaluationKJSSC Birla CollegeLocal College			piad			Shivpur	
15Dr.Smita ParanjapeWorkshop evaluationStudents' evaluation20/07/2015KJSSCLocal16Ms. Shilpa SawantWorkshop evaluationStudents' evaluation20/07/2015KJSSCLocal17Dr.Smita ParanjapeWorkshopAPI & CAS Preparation8/8/2015Birla CollegeLocal	Con	morco		а			
Paranjape evaluation  16 Ms. Shilpa Workshop Students' 20/07/2015 KJSSC Local evaluation  17 Dr.Smita Workshop API & CAS Preparation Preparation  18/8/2015 Birla College		T	Workshop	Students'	20/07/2015	KISSC	Local
16 Ms. Shilpa Workshop Students' 20/07/2015 KJSSC Local evaluation  17 Dr.Smita Workshop API & CAS Preparation Preparation College	13		Workshop		20/07/2013	10336	Local
Sawant evaluation	16		Workshop		20/07/2015	KJSSC	Local
17 Dr.Smita Workshop API & CAS 8/8/2015 Birla Local Paranjape Preparation College	_•	•			, 3.,		
Paranjape Preparation College	17		Workshop		8/8/2015	Birla	Local
			,				
TO DISTRICE   CONTRICTOR   EVOLVING AS   1//2/2010   VES   INGLIDIAL	18	Dr.Smita	Conference	Evolving as	17/2/2016	VES	National
Paranjape smart College, to College of		Paranjape		smart College,	to	College of	
concept 18/2/2016 Arts,				concept	18/2/2016	Arts,	
opportunities Science				opportunities		Science	
challenges and				challenges		and	
						Commerc	
Commerc						е	
e	19	Dr.Smita	Conference	Emerging	11/9/2015	SIA	National
19Dr.SmitaConferenceEmerging11/9/2015SIANational		Paranjape		trends in		College of	
19 Dr.Smita Conference Emerging trends in College of Co				business			

			opportunities		Higher	
			& challenges		Education	
20	Dr.Smita Paranjape	Conference	Emerging trends in business opportunities & challenges	11/9/2015	SIA College of Higher Education	National
21	Ms.Shilpa Sawant	Seminar	Seminar on Scientific writing	16/01/2016	K.J.Somaiy a College of Science and Commerc e	Local
22	Ms.Shilpa Sawant	Conference	Teaching learning and evaluation	12/12/2015	NKT College of Commerc e	National
23	Dr.Smita Paranjape	Conference	Teaching learning and evaluation	12/12/2015	NKT College of Commerc e	National
	Biotech		<u> </u>		T	T
23	Dr. K. Z. Marolia	Workshop	IPR	07/07/2015 to 08/07/2015	St. Xavier's College, Mumbai	Local
24	Dr. K. Z. Marolia	Workshop	Bioinformatics	10/07/2015 to 11/7/2015	St. Xavier's College, Mumbai	Local
25	Mr.Amit Jethwa	Workshop	Techniques in Molecular Diagnostics	12 <sup>th</sup> August to 14/08/2015	SIES College of Arts, Science and Commerc e	Local
26	Mr.Hemangi Kotibhaskar	Workshop	Techniques in Molecular Diagnostics	12 <sup>th</sup> August to 14/08/2015	SIES College of Arts, Science and Commerc e	Local
	Chemistry					

26	Dr. Chandana Basu	Seminar	Polymer Characterisati on and processing: Industrial challenges	16/05/2015	Homi Bhabha Lecture Hall	Local
27	Dr.Chandana Basu	Workshop	Workshop on CAS awareness	8 <sup>th</sup> August, 2015	Birla College of Arts, Science and Commerc e, Kalyan	Local
	Mr.Jaideep Wable	Seminar	Scientific writing	16/1/2016	K.J.Somaiy a College of Science and Commerce	Local
	Mr.Saurabh Shete	Seminar	Scientific writing	16/1/2016	K.J.Somaiy a College of Science and Commerce	Local
	Mr.Nanabhau Karanjule	Seminar	Scientific writing	16/1/2016	K.J.Somaiy a College of Sceince and Commerce	Local
	Dr.Aniket Pawanoji	Seminar	Scientific writing	16/1/2016	K.J.Somaiy a College of Science and Commerce	Local
	Dr.Trupti Tawde	Seminar	Scientific writing	16/1/2016	K.J.Somaiy a College of Science and Commerce	Local
	Mr.Preksha Jain	Seminar	Scientific writing	16/1/2016	K.J.Somaiy a College of Science and Commerce	Local
	Mr.Amol S.Pawar	Seminar	Scientific writing	16/1/2016	K.J.Somaiy a College of Science and Commerce	Local

	Dr.Bhanu Raman	Seminar	One day workshop on PGGIL	29/1/2016	V.G.Vaze College	Local
	Economics	1	1	•		•
			Student		Seminar	
28	Malati R.	Workshop	Evaluation	20/7/2015	Hall	Local
	Physics	1	T	T	T	T
29	Mr. S. K. Saxena	Conference	General theory of relativity	21/06/2015 to 24/06/2015	Charotar Univ. of Science and Technolog y, Anand, Gujarat	National
30	Dr. Pallavi Raote	Workshop	INUP	27/05/2015 to 29/05/2015	IIT, Mumbai	National
31	Mr. Jitendra Pendharkar	Conference	Emerging opportunities and rewarding career of radiation and cancer research	04/07/2015	University, Dept. of Biophysics , Kalina	National
32	Dr. Pallavi Raote	Workshop	Student Evaluation	20/07/2015	K. J. Somaiya College of Science and Commerc e	Local
33	Mr. Anshul Gupta	Workshop	Student Evaluation	20/07/2015	K. J. Somaiya College of Science and Commerc e	Local
34	Mr. Deepak Jalla	Workshop	Student Evaluation	20/07/2015	K. J. Somaiya College of Science and	Local

					Commerc e	
35	Mr. Amit More	Workshop	Student Evaluation	20/07/2015	K. J. Somaiya College of Science and Commerc e	Local
36	Dr.Pallavi Raote	Workshop	INUP (Hands on training)	17/08/2015 to 21/08/2015	IIT Mumbai	National
37	Dr.Deepak More	Workshop	First term training program for extension teachers and student managers	27/8/2015	Sydenham College of Com and eco.	Local
38	Dr.Meena Sharma	Workshop	Orientation workshop for 8 <sup>th</sup> National Teachers Science Congress	19/8/2015 to 20/08/2015	North eastern Regional Inst of education Umiam; Ri Bhoj Meghalay a	National
39	Dr.Meena Sharma	Workshop	Regional Orientation workshop for 8 <sup>th</sup> NTSC	31/7/2015 to 01/08/2015	RIE Bhuvanes hwar	National
40	Dr.Meena Sharma	Workshop	Evaluators workshop for evaluators and master resource persons for NCSC Maharashtra	30/9/2015	K.J.Somaiy a College of Science and Commerc e, Mumbai	Local
	Dr.DeepaK More		Annual meeting of IAS	5/11/2015 TO 8/11/2015	ISER Pune	National

	Mr.A.M.Shaker	Workshop	Syllabus Revision workshop	19/11/2015	Vaze Kelkar College Mulund	Local
	Mr.Ketankumar Gaikwad	Workshop	Managing School laboratory	18 <sup>th</sup> to 19 <sup>th</sup> December, 2015	HBCSE Mankhurd	Local
	Mrs.Smita Survase	Symposium	Bionanotechnol ogy future prospects	17/2/2016	Birla College, Kalyan	National
	Dr.Meena Sharma	Evaluator	8 <sup>th</sup> NTSC	17/12/2015 TO 19/12 2015	ISER Pune	National
	Dr.Deepak More Resource Person	Refresher Course in Environment al Consciousne ss and sustainable developmen t"	Use of educational software for Research purpose computer lab hands on MS- Excel Applications	20/10/2015	KJSSC	Local
	Dr.Geeta Nair (Resource Person)	Resource Person		21/11/2015 to 26/11/2015	IJSO HBCSE	National
	Ms.Smita Survase	Resource Person		21/11/2015	IJSO	National
NUT	RACEUTICALS				L	
41	Ms. Purva Medhi	Workshop	Workshop on Techniques in Molecular Biology	24/06/2015	KJSSC	Local
42	Ms.Purva Medhi	Workshop	Student's evaluative workshop seminar com	20/7/2015	KJSSC	Local
43	Ms.Purva Medhi	Seminar	Integrative Nutrition for nation's health	21/7/2015	Ruia college	Local

44	Ms.Purva Medhi	Lecturer	Andaman Island Ecosystem	9/10/2015		Local
45	Ms.Purva Medhi	Conference	Nutrigenomics & Nutrigenetics	29/1/2016 to 30/1/2016	Nashik	Internation al
	Mathematics		<u> </u>	l	1	
46	Prof.Sudha Agarwal	Enrichment Lecture Series	Enrichment lecture series	3/9/2015		Local
47	Prof.Reema Khanna	Enrichment Lecture Series	Enrichment lecture series	3/9/2015		Local
48	Prof.Reema Khanna	National Conference	Recent trends in Mathematics and Statistics	5/9/2015		National
	Prof.Reema Khanna	Local	Pedagogical training in Mathematics	2/11/2015 to 17/11/2015	ICT, Matunga	National
	Prof.Sudha Agarwal	T.E.W	Teachers' enrichment workshop organized by NCM	22/2/2016 to 27/02/2016	TIFR, Mumbai	National
	Prof.Reema Khanna	T.E.W.	Teachers' enrichment workshop organized by NCM	22/2/2016 To 27/02/2016	TIFR, Mumbai	National
	Mr.Prabhat Upadhyay	Workshop	State level workshop or application of linear Algebra	13/2/2016	S.P.College, Pune	State
		Workshop	"Basic Complex Analysis"	1/2/2016 to 6/02/2016	K.J.Somaiy a College of Science and Commere	Local

	Mr.Makarand Niphadkar	T.E.W. Workshop	Teachers' enrichment workshop organized by NCM State level workshop on application of	22/2/2016 to 27/02/2016 13/2/2016	TIFR, Mumbai S.P. College, Pune	National State
		Workshop	Basic Complex Analysis	1/2/2016	K.J.Somaiy a College of Science and Commerce	Local
		Workshop	Research based Pedogogical tools for teachers of undergraduate colleges	10/3/2016 to 12/03/2016	Indian Institute of Science Education and Research, Pune	National
	Mrs.Sudha Agarwal	Poster presentation	Mathemight	16/1/2016	Swami Vivekanand College	Local
		Workshop	Applied Mathematics	19/1/2016	Y.T. College of Engineerin g, Karjat	Local
		Workshop	Basic Algebra and Analysis workshop	Dec., 2015	Mumbai Univerity College	Local
	Mrs.Reema Khanna	Workshop	Basic Course in Algebra and Analysis	Dec., 2015	Mumbai University	Local
	Botany					
49	Dr.(Mrs) S.S. Yeragi	Conference	"Coastal and Estuarine Habit Restoration"	23/9/2015		National
50	Mrs.Supriya Naik	Conference	"Coastal and Estuarine Habit Restoration"	23/9/2015		National

51	Dr.Ajit S.Katdare	Conference	"Coastal and Esturaine Habit Restoration"	23/9/2015		National
	Mrs.Supriya Naik	Conference	National Conference on Environmental Monitoring Assessment and Pollution Control	10/12/2015 To 11/12/2015	SIES Educationa I Campus Nerul, Navi Mumbai	National
	Mrs.Supriya Naik	Conference "	Biomarkers for radiation exposure and cancer	01/08/2015	Departmen t of Biotechnol ogy, University of Mumbai	Internationa I
	Dr.Ajit Katdare	Workshop	"Techniques in Molecular Biology "	24/6/2015 to 25/06/2015	Departmen t of Botany, KJSSC and National facility for Biopharma ceutical, Matunga	Local
	Dr.Ajit Katdare	Conference	"Biomarkers for Radiation exposure & Cancer	01/8/2015 One day	Departmen t of Biotechnol ogy, University of Mumbai	Local
	Dr.Ajit Katdare	Workshop	"Bonsai Making	04/8/2015	Departmen t of Botany KJSSC	Local
	Dr.Ajit Katdare	Conference	"Fungal Diversity of their applications	11/12/2015 To 12/12/2015	Guru Nanak College of Arts, Science and Commerce	Local
	Dr.Ajit Katdare	Conference	Science sustainability & society in the current scenario challenges and opportunities	20/2/2016	Vikas College of Arts, Science and Commerce	Local

Dr.(Mrs) Anjali Ratnakar	Workshop	Techniques in molecular Biology"	24/06/2015	Departmen t of Botany KJSSC and National facility for Biopharma ceuticals	Local
Dr.(Mrs) Anjali Ratnakar	Workshop	'Bonsoi Making'	04/8/2015	Departmen t of Botany KJSSC	Local
Dr.(Mrs) Anjali Ratnakar	Seminar	"Scientific writing "	16/01/2016	IQAC	Local
Dr.(Mrs) Anjali Ratnakar	Conference	Science Sustainability & society in the current scenario challenges and opportunities	20/2/2016	Vikas College of Science, Arts & Commerce, Vikhroli	Internationa I
Dr(Mrs) Meena Patankar	Workshop	"Techniques in Moleculr Biology"	24/6/2015 to 25/06 2015	Departmen t of Botany KJSSC	Local
Dr.Veena Salvi	Workshop	"Techniques in Molecular Biology"	24/6/2015 to 25/06/2015	Departmen t of Botany, KJSSC	Local
Dr.Veena Salvi	Workshop	"Bonsai Making"	04/8/2015	Deaprtmen t of Botany, KJSSC	Local
Dr.Veena Salvi	Workshop	Applications of Statistics in Biological Science	03/9/2015 to 04/09/2015	Departmen t of Statistics KJSSC	Local
Dr.Veena Salvi	Conference	Science sustainability and society in the current scenario challenges and opportunities	20/2/2016	Vikas College of Arts, Science and Commerce	Internationa I
Dr(Mrs) Vinaya Rane	Workshop	"Techniques in Molecular Diagnostics:	12/8/2015 to 14/08/2015	Departmen t of Biotechnol ogy S.I.E.S. College of Arts, Science & Commerce	Local

Dr(Mrs) Vinaya Rane	Conference	Science, sustainability & society in the current scenario Challenges and opportunities	20/2/2016 One day	Vikas College of Arts, Science and Commerce	Internationa I
Dr.(Mrs) S.S. Yeragi	Conference	"Coastal and Estuarine Habitat Restoration	23/9/2015	B.N.Bando dhar	National
Dr.(Mrs) S.S.Yeragi	Workshop	"Bonsoi Making"	04/8/2015	K.J.Somaiy a College of Science and Commerce	
Dr.(Mrs) S.S.Yeragi	Workshop	"Biomarkers for Radiation Exposure and Cancer"	01/8/2015	Dept.of Biotech University of Mumbai	Internationa I
Dr.(Mrs) S.S.Yeragi	Workshop	"Techniques in Molecular Biology"	24/06/2015 and 25/6/2015	Dept.of Botany K.J.Somaiy a Science and Commerce	Local

	ZOOLOGY					
52	Ms.Shreya Patil	Workshop	Molecular Phylogenetic Analysis Techniques	05/01/2016		State
53	Mr.Amol Patwardhan	Workshop	"Peer review of University Books for F.Y.B.Sc. Zoology"	20/10/2015		Local
53	Dr.Veena Srivastava	Conference	"Wet land; Big Benefits for people & Nature	22 <sup>nd</sup> Feb., 2015		National
	Accountancy	1 -	T -	l	Π	1
54	CA Manisha Damle	Seminar	Statutory Audit of Bank Branches	6/2/2016	State	
	Geology	<u> </u>				
	Dr(Mrs) Jyoti Sharma	Workshop	GIS (Gram ++) Software	6/2/2016 to 7/2/2016	Mumbai	Local
	Mr.Mahesh Swami	Workshop	GIS (Gram ++) Software	6/2/2016 to 7/2/2016	Mumbai	
	Mr.Vinod Menon	Workshop	GIS (Gram ++) Software	6/2/2016 to 7/2/2016	Mumbai	
	Mr.Deepak Sahu	Workshop	REE, exploration	6/2/2016 to 7/2/2016	Atomic mineral Division Bangalore	National
	Computer Science	e		ı		ı
	Ms.Mousmi Pawar	Workshop	R-Programming Language	26/2/2016 to 27/02/2016	S.K.Somaiy a College	Local
	Statistics	•		•	<u>.                                      </u>	•
	Ms.Madhavi Jardosh	Seminars	Reliability and Survival analysis	9 <sup>th</sup> jan., 2016	Modern College Pune	State

Jardos	adhavi sh rashant	Seminar	Scientific writing  Recent techniques in Applied	16 <sup>th</sup> Jan., 2016 5 <sup>th</sup> Mar., 2016	IQAC K.J.Somaiy a College of Science and Commerce Departmen t of Statistics,	Local
			statistics		University of Mumbai	
-	onmental Sc					
Dr.Sai	njay Joshi	Conference	Vedh: Career & Hobby	12 <sup>th</sup> Sept to 13/09/2015	Pune	Local
Dr.Sai	njay Joshi	Conference	World Wetlands Day	2 <sup>nd</sup> Feb., 2015	Palghar	Local
Dr. Sa	njay Joshi	Conference	The Indian Sciene Congress (102 <sup>nd</sup> )	3 <sup>rd</sup> -7 <sup>th</sup> January, 2015	University of Mumbai	National
	njay Joshi students	Seminar	Environment, Ecology & Human Health in Ancient India	7 <sup>th</sup> Setpt., 2015	Chanakya Building Vidyavihar	Local
Mr.Na	akul Patkar	Conference	Energy Audit for Education institution	7 <sup>th</sup> -8 <sup>th</sup> January, 2016	K.C.College	National
Ms.Kr	rutika Joshi	Conference	Energy Audit for Education Institution	7 <sup>th</sup> -8 <sup>th</sup> January, 2016	KC College	National
		Seminar	World Wetland Day	2 <sup>nd</sup> Feb., 2016	Social Forestry Departmen t	Local
	d Joshi :a Dalvi	Workshop	Applications of Statistics in Biological Sciences	3 <sup>rd</sup> to 4 th September, 2015	Dept of Statistics K.J.Somaiy a College of Science & Commerce	Local

Rupal Bharya	Workshop	'Anvaya' Film Making Waste to Resource	August 2015 to Sept 2015	Xavier Institute of Communic ation	State
Dr.Sugandha Shetye Dr.Sanjay Joshi	Convention	Thane Mangroove Creek Conmvention	26 <sup>th</sup> July, 2015	B.N.Bando dkar College	Local

# Resource person Physics

- Dr. Meena Sharma: Subject Expert for selection of Research Paper for 8<sup>th</sup> NTSC 3<sup>rd</sup>
  July 2015
- Dr. Geeta Nair: Resource Person, IJSO 8<sup>th</sup> May 2015 to 26<sup>th</sup> May 2015
- Ms. Smita Survase: Resource Person, IJSO 8<sup>th</sup> May 2015 to 26<sup>th</sup> May 2015
- Mr. Anshul Gupta: Resource Person, IPHO 4<sup>th</sup> May 2015 to 15<sup>th</sup> May 2015
- Mr. A. M. Shekar: Resource Person, IPHO 4<sup>th</sup> May 2015 to 15<sup>th</sup> May 2015
- Mr. Amit More: Resource Person, IPHO 4<sup>th</sup> May 2015 to 15<sup>th</sup> May 2015
- Mr. Deepak Jalla: Resource Person, IPHO 4<sup>th</sup> May 2015 to 15<sup>th</sup> May 2015
- Mr. A.M.Shaker: Observer NEST 28<sup>th</sup> May to 30<sup>th</sup> May., 2015
- Academic Team and resource person: Mr. Anshul Gupta, 3<sup>rd</sup> July to 13<sup>th</sup> July

Mr. A. M. Shekar Mr. Amit more Mr Deepak Jalla

• Mr.Amit More - Judge Best student competition (Group discussion)

## Papers presented at the conferences/seminars

Sr. No	Name of the teacher	Theme of the seminar/ conference	Title of the paper / poster	Venue	Date	Local / State / National / Internation		
	Microbiology							
1	Ms.Monica		Isolation and Screening	Guru		National		
	Londhe		of wild yeasts for xylital	Nanak				
	Dr.Unnati		production	College,				
	Padalia			Sion				
2	Mr.Kishor		Effect of Chemically			National		
	Bairi		synthesized coumarin					
	Dr.Unnati		derivaltive against c.					
	Padalia							

			albicans as a antifungal agent			
3	Dr.Vijay Joshi, Dr.Pradnya Prabhu, Dr.Lolly Jain, Mrs.Madha vi Jardosh	College IQAC mening and manifestatio ns	Paper Re-inforcing culture of Excellence through IQAC	Kirti M.Doong ursee College Mumbai	30/1/2016	National
4	Dr.Vijay Joshi, Dr.Pradnya Prabhu, Dr.Lolly Jain, Dr.Chandan a Basu	College IQAC menaing and manifestatio ns	Paper: Innovative Practice in Curriculum Design	Kirti M.Doong ursee College Mumbai	30/1/2016	National
5	Ms. Vallary Belsare Dr.Lolly Jain	Science and Jain Philosophy	Paper : Effect of sound "OM" on microbial activity	IIT Bombay Powai Mumbai	08/1/2016 to 10/12/2016	Internation al
6	Dr.Vijay Joshi, Dr.Pradnya Prabhu, Dr.Chandan a Basu, Dr.Lolly Jain, Ms.Madhavi Jardosh	Innovations in Teaching Learning and evaluation in higher Education	Paper : Innovation in Teaching and Evaluation	SIES College of Arts, Science and Commerc e, Mumbai	26/2/2016 to 27/02/2016	National
7	Ms.Hinal Gandhi, Mr.Shabib Khan		Biological Synthesis of nanoparticles and their application in dye degradation waste water treatment as antimicrobialagenet and production and microbial resistance	Vikas College	20/2/2016	
	Economics					
8	Dr.Usha Iyer	Guest lecture	Guidelines for T.Y.B.Com. on Eco Paper III	Nalanda College Santacruz	5/2/2016	
9	Dr.Usha Iyer	Chairperson	Challenges before Indian Economy in Global Era	Pragati College Dombivili	12/2/2016 to 13/02/2016	National
10	Dr.Usha Iyer	Speech	Socio Economic Impact of Migration with	Pragati College Dombivli	12/2/2016 To 13/02/2016	National

			particular reference in Brain Drain from India			
	Physics					
11.	Smita Survase	Ion Beam Analysis	Formation of CdTe nanophase by SHI Induced mixing of TC/Cd/Te trilayer films	Opatijia CROATIA	14/06/2015 to 19/06/2016	IN
	Jitendra Pendharkar	Science systainibility and society in current scenario: challenges and opportuniti es	Sythesis and Ch. Of soft magnets and their possible applications	Vikas College, Mumbai	20/2/2016	IN
	Accountancy		<u> </u>			
12	Atul Thatte	World a Global Village	M-Commerce in India emerging issues & challenges	Chandrab han Sharma College of Arts, Science and Commerc e	6/1/2016	Internation al
	CA Atul Thatte	Make in India Strategies challenges & opportunitie s	Make in India Drive- Boon or BANE	MCM degree college of Science and Commerc e	27/2/2016	IN
	Information	Technology				
	Ms.Minal Dive		E-Government Architecture in Cloud Computing Environment	The SIA College of Higher Educatio n	21/8/2015 TO 22/08/2015	National
	Ms.Leena Shewale		Role of it in Travel Industry	The SIA College of Higher Educatio n	21/8/2015	National

	Ms.Prajakt a Kamble		Vision of Blue Eyes Technology	The SIA College of Higher Educatio n	21/8/2015	National
	Computer So	cience				
	Ms.Suchita Maudhare		DBMS Database as Service	Vikas College Vikhroli	20/2/2016	IN
	Statistics					
	Mrs.Madha vi Jardosh	Innovations in Teaching- Learning and Evaluation	Innovation in Teaching and Learning	SIES College Sion	26/2/2016 - 27/02/2016	N
	Mrs.Madha vi Jardosh	College IQAC, Meaning and Manifestati ons	Reinforcing Culture of Excellence	Kirti College	30/1/2016	N
	Biochemistry	/				
	Dr.S.M.Paw askar Ms.Nusrat Ansari	Recent advances in Chemical and Biological Sciences	Biochemical & Invitro antioxidant study of medicinal plant	K.M.Agar wal College	26/2/2016	
	Environment	tal Science				
13	Mr.Bruno Fernandez	World Wetland Day	Study of Avifauna of nalasopara and Vasai Road	S D College Palghar	2 <sup>nd</sup> Feb., 2015	N
	Dr.Sanjay Joshi	Green Health Foundation (Internation al)	Biomedical waste Management	Nehru Centre	22 <sup>nd</sup> Feb-23 Feb 2015	IN

Posters presented in Workshops / Conferences / Seminars/ Symposia:

Sr. NO	Name of the teacher	Title of the poster	Theme of the seminar/confere nce	Date	Venue	Local/ State/ National /Internati onal
	Microbiology					
01	Mrs.Soniya Shetty	Ecofriendly alternative for processing of coconut Fibres	Maker-Mela national Exhibition	9 <sup>th</sup> – 11 <sup>th</sup> October, 2015	Somaiya Campus	National
02	Ms.Sayali Dagde Mrs.Soniya Shetty	Antibacterial Effect of Lactoba	Maker Mela National Exhibition	9 <sup>th</sup> – 11 <sup>th</sup> October, 2015	Somaiya Campus	National
03	Ms.Prartha na Poojari	Antifungal activity of Lactobacilli on Formation of germ tube	Maker Mela National Exhibition	9 <sup>th</sup> – 11 <sup>th</sup> October, 2015	Somaiya Campus	National
04	Mr.Moham med R. Mrs.Hemlat ta Chakrabort y	Studies on biofuel producing algae	Maker Mela National Exhibition	9 <sup>th</sup> – 11 <sup>th</sup> October, 2015	Somaiya Campus	National
05	Dr.Lolly Jain, Ms.Nikita Gelye	Antimicrobial activity of Banana, Orange and pineapple, peels and application of polyphenol Oxidase enzyme for the degraduation of pollutants	Maker mela poster National Exhibition	9 <sup>th</sup> – 11 <sup>th</sup> October, 2015	Somaiya Campus	National
06	Dr.Lolly jain and Vallary Belsare	The effect of audible sound on microbial activity	Maker mela National Exhibition poster	9 <sup>th</sup> - 11 <sup>th</sup> October, 2015	Somaiya campus	National
07	Ms.Sayli Hande Mrs.Shailaj a Girishankar	Characterization of Fermented Rice Broth and isolation ifentification of laetic acid bacteria	Sajjyan Gupta Konark memorial meet	15/1/201 6		
08	Mr.Tushar Mohite Mrs.Shailaj a Girishankar	Production and applications of β Cyclodextrins	Sajjyan Gupta Konark memorial meet	15/1/201 6		

09	Mrs.Stewar t Miriam Dr.Unnati Padalia	An environmentally safe method of fungal decontamination and food preservation	Mycology conference	11-12- 2015	G.N.Colle ge of Arts, Science and Commer ce	National
10	Ms.Pooja Singh Dr.Unnati Padalia	Evaluation of antifungal activity of chemically synthesized chalcone derivatives against c.albicans		11-12- 2015	G.N.Colle ge of Arts, Science and Commer ce	National
11	Mrs.Shailaj a menon Dr.Unnati Padalia	Field examination of Glomus , a mycobiont		11-12- 2015	G.N.Colle ge of Arts, Science and Commer ce	National
12	Ms.Bhamre Pradnya Dr.Unnati Padalia	Invitro antifungal activity of bacterial biosurfactant	Conference	11-12- 2015	G.N.Colle ge of Arts, Science and Commer ce	National
13	Ms.Salgaon kar Snehal Dr.Unnati Padalia	Development of antibacterial herbal handwast gel	Conference	11-12- 2015	G.N.Colle ge of Arts, Science and Commer ce	National
14	Ms.Pooja Singh Dr.Unnati Padalia	Effect of Chemically synthesized coumarin derivative against c.albicans	Conference	11-12- 2015	G.N.Colle ge of Arts, Science and Commer ce	National
15	Ms.Shailaja Menon Dr.Unnati Padalia	Role of fungal symbient on capsicum annum	Conference	11-12- 2015	G.N.Colle ge of Arts, Science	National

					and Commer ce	
16	Ms.Pooja Singh	Evaluation of antifungal activity of chalcone derivative	Conference	09-01- 2016	G.N.Khal sa College	Local
17	Ms.Pradnya Bhamre	In-vitro antifungal activity of bacterial biosurgactant	Conference	09-01- 2016	G.N.Khal sa College	Local
18	Ms.Snehal Salgaonkar	Development of anti- herbal handwash gel	Conference	09-01- 2016	G.N.Khal sa College	Local
19	Ms.Pooja Singh	Evaluation of anti microbial activity of chalcone derivatives	Conference	15-01- 2016	Wilson College	Local
20	Ms.Pradnya Bhamre	Production of biosurfactant by Pseuolomonas seruginosa from olive oil	Conference	15-01- 2016	Wilson College	Local
21	Ms.Snehal Salgaonkar	Formulation and evaluation of Herbal Handwash	Conference	15-01- 2016	Wilson College	Local
22	Ms.Pooja Singh	Evaluation of antimicrobial activity of chalcone derivatives	Conference	20-01- 2016	St.Xavier s College	Local
23	Ms.Pradnya Bhamre	Biosurfactant an ovel solution to chemical pollutants	Conference	20-01- 2016	St.Xavier s College	Local
24	Ms.Hemlatt a C. and Ms.Diksha A.	Antioxidant profile of oscimum sanctum	Sajjan Gupta Konark Research meet	15-01- 2016	Wilson College	Local`
25	Ms.Hemlatt a C.Runali C.	Evaluation of bacterial isolate capable of growth on pollutant and application in Bioremediation	Guru Nanak Institute for Research Education	09-01- 2016	Guru Nanak Khalsa College	Local
26	Ms.Hemlatt a Runali C.	Evaluation of bacterial isolates and its use in	S.G.Konark Research meet	15-01- 2016	Wilson College	Local

		bioremediation application in bioremediation				
27	Ms.Hemlatt a C.Runali C.	Evaluation of bacterial isolates and its use in bioremediation	CONSORTIUM Environmental microbial biotechnology meet	20-01- 2016	St.Xavier s College	Local
28	Ms.Hemlatt a Shalaka Kadam	Production of lipase and their potential application by using spoiled fatty food.	CONSORTIUM Environmental microbial biotechnology meet	20-01- 2016	St .Xaviers College	Local
29	Ms.Hemlatt a C.Shalaka Kadam	Production of lipase and their potential application by using spoiled fatty food.	Konark Research meet	15-01- 2016	Wilson College	Local
	Ms.Hemlatt a C.Mohamme d Rampurawal a	Biodiesal Extraction from Algae	Konark Research Meet	15-01- 2016	Wison College Chowpatt Y	Local
	Ms.Hemlatt a C.Mohamme d Rampurawal a	Biodiesal extraction from Algae	CONSORTIUM Environmental Microbial Biotech Meet	20-1-2016	St. Xaviers College	Local
	Ms.Gelye Nikita C. Lolly Jain	Antimicrobial activity of fruit peels and application of enzyme isolated from Banana Peals as a Pollutant degrader	Inter-Collegiate Poster Competition P.G.Level (Poster)	09-01- 2016	G.N.Khals a College	Local (Won First Prize)
	Ms.Gelye Nikita Lolly Jain	Antimicrobial activity of fruit peels utilization of waste and application of enzyme extracted from banana peels	CONSORTIUM Environmental Microbial biotechnology meet (Poster)	20-01- 2016	St.Xaviers College	Local
	Ms.Nikita Gelye Lolly Jain	Antimicrobial activity of fruit peels- Utilisation of waste	The Sajjan Gupta Konark memorial Research meet (poster)	15-01- 2016	Wilson College	Local

Ms.Vallary Belsare Lolly Jain	Effect of sound "OM' on microbial activity	The Sajjan Gupta Konark memorial Research meet (poster)	15-01- 2016	Wilson College	Local
Ms.Divya Chauhan Lolly Jain	Isolation of microbial prodigiosin producers and studying application of prodigiosm	The Sajjan Gupta Konark memorial Research meet (poster)	15-01- 2016	Wilson College	Local
Ms.Devyani Dongre Lolly Jain	Antibacterial effects of Panchamrit (poster)	The Sajjan Gupta Konark memorial Research meet (poster)	15-01- 2016	Wilson College	Local
Ms.Tanvi Shah Lolly Jain	Poster	The Sajjan Gupta Konark memorial Research meet (poster)	15-01- 2016	Wilson College	Local
Ms.Vrutuja Naik Lolly Jain	Poster	The Sajjan Gupta Konark memorial Research meet (poster)	15-01- 2016	Wilson College	Local
Ms.Nikita Gelye Lolly Jain	Antimicrobial activity of fruit peels utilization of waste	Science sustainability and society in the current scenario	20-02- 2016	Vikas College of Arts, Scienca and Commerc e	Local
Ms.Manasvi Gandhi Soniya Shetty	Synthesis of bionano composite film composed of Cu nanopartides and its application	Sajjan Gupta Konark memorial meet	15-01- 2016	Wilson College	State
Ms.Shivangi Kuthari Soniya Shetty	Endophytes as biofertilizers	Sajjan Gupta Konark memorial meet	15-01- 2016	Wilson College	State
Ms.Gala Divya Soniya Shetty	Isolation and identification of microbial flara in breeding sites of Aedes a egypti mosquito	Sajjan Gupta Konark memorial meet	15-01- 2016	Wilson College	State
Ms.Sayli Dagde Soniya Shetty	Antibacterial effect of Lactofacillus on some common pathogens	Sajjan Gupta Konark memorial meet	15-01- 2016	Wilson College	State
Ms.Prarthan a Poojari Soniya Shetty	Antibacterial activity of Lactobacillus on formation of germ tube	Sajjan Gupta Konark memorial meet	15-01- 2016	Wilson College	State

	Ms.Manasvi Gandhi Soniya Shetty	Synthesis of bionano composite film composed of Cu nano particles and its application  Endophytes as	St Xaviers College Consortium 2016 Environmental Biotechnology meet St Xaviers College	20-1-2016		Local
	Ms.Shivangi Kuthari Soniya Shetty	Biofertilizers	Consortium 2016 Environmental Biotechnology meet	20-1-2016		Local
	Prarthana Poojari	Science sustainability and society in the current scenario challenges and opportunities (Theme)	Inhibitory effect of Probiotic bacteria on Candida albicans		Vikas College	
	Sayli Dagde Soniya Shetty	Science sustainability and society in the current scenario challenges and opportunities (Theme)	Antibacterial effect of Lactobacillus on some common pathogems		Vikas College	
	Soniya Shetty	Inauguration of RiiDL	Ecofriendly alternative to processing of Coconut fibres (published in Proceedings)	08-1-2016	Somaiya Campus RiiDL Lab	
	Shivangi Kothari Soniya Shetty	Inauguration of RiiDL	Endophytes as fertilizers (published in proceedings)	08-1-2016	Somaiya Campus RiiDL Lab	
	_	y Dr.Harsh Vardhan , Union is of the Campus	Minister for Science a	and Technolog	y . Project s	elected as
51		Biological synthesis of Nano-particles and its applications in waste water treatment in dye degradation, antimicrobial activity coated on antibiotics and production of water repellent and microbial resistant cloth	CONSORTIUM	20-1-2016	St.Xaviers College	
				09-1-2016	G.N.Khals a College	
				15-1-2016	Sajjan Gupta Konark meet	
52	Samruddhi Jadhav	Isolation Characterisation and degradation of oil by oil	CONSORTIUM	20-1-2016	St.Xaviers College	

	Mr.Shabib Khan	degrading bacteria from polluted soild and comparative study of biodegradation potential	Sajjan Gupta	15-1-2016		
53	Supriya Badgujar Mr.Shabib Khan	Antibacterial and antioxidant properties of fruit peels and their application	Konark CONSORTIUM	20-1-2016	St.Xaviers College	
			Sajjan Gupta Konark meet	15-1-2016		
54	Ms.Hinal Gandhi Mr.Shabib Khan	Biological synthesis of nanopartiles and their application induye degradation. Waste water treatment as antimicrobial agent and production of microbial resistance	Vikas College	20-2-2016		
	Physics					
1	Mr.Jitendra Pendharkar	Synthesis and testing of antibacterial properties of metal oxides nano fluids	Neco horizons in synthetic and material Chemistry	26- 28/11/201 5	Departme nt of Chemistry , University of Mumbai	Internation al
2	Mr.Deepak Jalla	Multifractal invariant measure in coupled skewed tent map	4 <sup>th</sup> International conference in complex Dynamical sytems and applications	15 <sup>th</sup> to 17 <sup>th</sup> February, 2016	National Institute of technolog y Durgapur	Internation al
	Chemistry					
	Mr.J.B.Wabl e	Synthesis and characteristics of novel thiophone anchored sulphonamide derivatives of bio interest	New horizons in synthetic and materials chemisty ICSMC- 2015	26-28 / Nov/ 2015	Dept.of Chemistry University of Mumbai	Internation al
	Dr.Bhanu Raman	A study of extraction of Bismuth (iii) with cyanex 301	New horizons in synthetic and materials chemisty ICSMC- 2015	26-28 / Nov/ 2015	Dept.of Chemistry University of Mumbai	Internation al
	Dr.Vanita Kulkarni	Electron spin resonance spectra studies of	New horizons in synthetic and	26-28 / Nov/ 2015	Dept.of Chemistry	Internation al

		mononuclear copper with some schiff bases	materials chemisty ICSMC- 2015		University of Mumbai	
	Dr.Trupti Tawde	Development of new Bisbenzimidaze derived chiral phosphoric acid	New horizons in synthetic and materials chemisty ICSMC- 2015	26-28 / Nov/ 2015	Dept.of Chemistry University of Mumbai	Internation al
	Dr.Yogesh Ghalsasi	Synthesis and acoustics study of cu-oxide nano particles	New horizons in synthetic and materials chemisty ICSMC- 2015	26-28 / Nov/ 2015	Dept.of Chemistry University of Mumbai	Internation al
	Dr.Dilip Kumar Yadav	Copper Catalysed synthesis of nitries by aerobic oxidation reaction of alcohols and ammonium formate	New horizons in synthetic and materials chemisty ICSMC- 2015	26-28 / Nov/ 2015	Dept.of Chemistry University of Mumbai	Internation al
	Ms.Preksha Jain		National Conference on Recent dwele prevents in Chemical sciences	22-23th Dec., 2015	Radhabai Kale	National
	Mr.Avinash Pardhi		National Conference on Recent dwele prevents in Chemical sciences	22-23th Dec., 2015	Mahila Vidyalaya Ahmedna gar (M.Sc) 414001	National
	Dr.Rohit Singh Chauhan	Synthesis of Copper and AG Chalcoyenider	National Conference on Recent dwele prevents in Chemical sciences	22-23th Dec., 2015	Mahila Vidyalaya Ahmedna gar (M.Sc) 414001	National
1	Mr.Jaidip B.Wable	Synthesis of Cu & AG chalcogenides	National Conference on Recent dwele prevents in Chemical sciences	22-23th Dec., 2015	Mahila Vidyalaya Ahmedna gar (M.Sc) 414001	National
	Mr.Saurabh Shete	Seld assembly of novel dipeptide esters leading to nanostructures	New horizons in synthetic and materials chemisty ICSMC- 2015	26-28 / Nov/ 2015	Dept.of Chemistry University of Mumbai	Internation al
	Mr.Yash Punjabi Dr.Veena Khilnani	Isolation and identification of alkaloido from the flowers of Nymphara Neuchali	New horizons in synthetic and materials chemisty ICSMC- 2015	26-28 / Nov/ 2015	Dept.of Chemistry University of Mumbai	Internation al

Mr.Yash Punjabi Dr.Veena Khilnani & Mrs.Padmaj a damle	The investigation of antibacterial activity of Stem extracts of Cestrum nocturnum	New horizons in synthetic and materials chemisty ICSMC- 2015	26-28 / Nov/ 2015	Dept.of Chemistry University of Mumbai	Internation al
Dr. Chitra Kamath		New horizons in Synthetic and Natureal chemistry	26-08/ Nov., 2015	Dept.of Chemistry University of Mumbai	Internation al
Environmen tal Science					
Mr.Nakul Patkar	Energy Audit of K.J.Somaiya College	Energy Audit for Educational Institutions	7 <sup>th</sup> - 8 <sup>th</sup> January, 2016	KC College	National
Krutika Joshi	Energy Sudit of K.J.Somaiya College	Energy Audit for Educational Institutions	7 <sup>th</sup> - 8 <sup>th</sup> January, 2016	KC College	National

# Abstracts / Articles published in proceeding for papers presented

Sr. NO	Name of the teacher Physics	Title of the poster	Theme of the seminar/conferen ce	Date	Venu e	Local/ State/ National /Interna tional
1.	Ms. Smita Survase	Formation of CdTe nano Phase By SHI induced mixing of Te/Cd/Te Trilayer films	Ion beam Analysis	14/06/ 2015 To 19/06/ 2015	Opati jia; CROA TIA	Internati onal
	Zoology				•	•
1	Mr.Deshmu kh Vikrant V.	Shore Charatalistics of Breach Candy Intertidal Area in South Mumbai	"Recent Trends in Education, Research & Management	Feb., 2015	Kalse kar Degr ee Colle ge	National
	Microbiology	,				_

1	Ms.Pooja Singh Dr.Unnati Padalia	Evaluation of antimicrobial activity of chemically synthesized chalcone derivatives	Poster presentation competition	15/01/ 2016 Sajjan G.Kon ark	Wilso n Colle ge	Local
2	Ms.Pradnya Bhamre Dr.Unnati Padalia	Production of Biosurfastant from olive oil and its applications	Poster presentation competition Sajjan Gupta Konark Memorial	15/01/ 2016	Wilso n Colle ge	Local
3	Ms.Snehal Salgaonkar Dr.Unnati Padalia	Development of herbal antifungal hand wash	Poter presentation comp.Sajjan Gupta Konark Memorial	15/01/ 2016	Wilso n Colle ge	Local
4	Ms.Pooja Singh Dr.Unnati Padalia	Evaluation of antimicrobial activity of chemically synthesized chalcone derivatives	Paper and poster presentation	20/2/2 016	Vikas Colle ge	Internati onal
5	Ms.Pradnya Bhamre Dr.Unnati Padalia	Antibiofilm and antibacterial effect of biosurfactant produced from Pscudomomas aerugnosa	Paper and poster presentation	20/2/2 016	Vikas Colle ge	Internati onal
6	Ms.Snehal Salgaonkar Dr.Unnati Padalia	Formulation and evaluation of Herbal hand wash	Paper and poster presentation	20/2/2 016	Vikas Colle ge	Internati onal
7	Ms.Padmaja Damle Dr.Unnati Padalia	Formulation and evaluation of Herbal hand wash	Paper and poster presentation	20/2/ 2016	Vikas Colle ge	Internati onal
8	Mr.Kishor Bari Dr.Unnati Padalia	Formulation and evaluation of Herbal hand wash	Paper and poster presentation	20/2/ 2016	Vikas Colle ge	Internati onal
9	Ms.Miriam Stewart	Formulation and evaluation of Herbal hand wash	Paper and poster presentation	20/2/ 2016	Vikas Colle ge	Internati onal
	Biochemistry					
1	Dr.S.M.Paw askar Ms Nusrat Ansari	Biochemical and Invitro Antioxidant study of medicinal	Recent advances in Chemical and Biological Science	26/2/ 2016	K.M. Agar wal Colle ge	National

Papers published in Research Journals:

Papers published in Research Journals:

Sr. No	Name of the authors and co- authors as appeared in the paper (Highlight the name of the faculty)	Title of the paper	Journal name, Vol.no.,Montha nd year, Page nos.	Impact factor/ISS N no. /ISBN no./Scop us index/H- index of the journal	N/IN
	Microbiology		1	T	ı
1	Ms.Snehal Shivangi Patil, Dr.Lolly Jain	Use of aqueous extract of cranberry in the treatment of urinary tract infections during pregnancy	GLOBAL JOURNAL FOR RESEARCH ANALYSIS Vol. No.04, Issue: 04 Month & Year April, 2015 PG Nos. 41 to 43	IMPACT FACTOR 3.1218 ISSN No. 2277- 8160	Internation al
2	Ms.Pooja Singh Dr.Unnati Padalia	Evaluation of antifungal activity of chalcone derivatives	International journal of Life Science A5 (70- 72) 12/15	2320- 7817 (P) / 2320 – 964X/0	Internation al
3	Ms.Pooja Singh Dr.Unnati Padalia	Evaluation of antifungal activity of coumarin derivatives	International Journal of Life Sciene A56 12/15, 105-106	2320- 7817 (P) 2320- 964X/O	Internation al
4	Ms.Pradnya Bhamre Dr.Unnati Padalia	Invitro antifungal activity of bacteriall biosurfactant	International Journal of Life Science A56 12/15, 77-80	2320- 7817 (P) / 2320- 964X/o	Internation al
5	Ms.Snehal Salgaonkar Dr.Unnati Padalia	Development of antifungal herbal handwash gel	International Journal of Life Sciene A5 12/15, 86-88	2320- 7817 (P) / 2320-964 X/o	Internation al
6	Ms.Miriam Stewart Dr. Unnati Padalia	Electron beam irradiation An environmentally safe method of fungal decontamination and food preservation	Internation Journal of life science , A5 12/15, 7-10	2320- 7817 (P) / 2320-964 x(o)	Internation al

7	Ms.Madhavi Londhe Dr.Unnati Padalia	Isolation and screening of wild yeast for maximum xylital production	International Journal of Life Science A5 12/15-11-18	2320- 7817 (P) / 2320-964 x(o)	Internation al
8	Ms.Menon Shailaja	Field examination of Glomus a mycobiont	73-76	2320- 7817 (P) / 2320-964 x(o)	Internation al
9	Mr.Bairi Kishor	In-vitro antimicrobial activity of fungi from extreme environment	92-94	2320- 7817 (P) / 2320-964 x(o)	Internation al
10	Dr.Reshma Turbhekar Dr. Deepak Thakare	Biomedical Applications of biosurfactant produced 64. Pseudomonus aeruginusa from hydrocarbon contaminated soil,	Bionano Frontier Vol.16(3) 94-96	Impact factor 0.9 ISSN- 0974- 0678	Internation al
11	Dr.Reshma Turbhekar Nagesh Malik Debarshi Dey and Deepak Thakare	Development of Rhambilipid based White board cleaner	International Journal Applied Science Biotechnology 570-573	Impact factor 1.422	Internation al
12	Dr.Reshma Turbhekar Nages Malik, Debarshi Dey and Deepak Thakare	Disruption of Candida albicans biofilms by Rhamndipid obtained from Pseudomonas Aeruginosa.RT	IIT SRB Vol.3 (3) 73-77	Impact factor 2.991	Internation al
13	Dr.Reshma Turbhekar Nagesh Malik and Deepak Thakare 2015	Optimization studies for enhancing Vhamnoli production by Pseudomonas aerugmusa using	IJRSB.Vol.3 (5) 65-73	Impact factor 2.991	Internation al

		Response surface methodology.			
	Biotechnolo	gy	l		1
1	Ms. Hemangi Kotibhaskar Hiren Dandia Harsha Palav	Potability testing and microbiological analysis of drinking water at central railway stations of Mumbai suburbs	International Journal of latest research in Science and technology Vol 4 Issue 3, May-June 2015 PG Nos. 60-62	Impact Factor 1.979 ISSN No. 2278- 5299	IN
	Chemistry	T	ı	T	_
1	Dr. Bhanu Raman S. S. Salunke Bright O' Philip	Extraction and Estimation of Ruthenium (III) from hydrochloric acid medium by Cyanex 302	International Journal of Scientific Research Vol 4 / Issue 5 / May 2015	ISSN No. 2277 – 8179	IN
2	Dr. Bhanu Raman S. S. Salunke Bright O' Philip	Liquid – Liquid Extraction of platinum (IV) with Cyanex 301	International Recognised Double blind peer Reviewed multi disciplinary Res Journal Vol 5 / Issue 4 / May 2015	Impact Factor 3.1560 (UIF) ISSN 2230 – 7850	IN
3	Dr. Chandana Basu Dr. Nishamol Kanat Bhagaban Panda	Effect of Carbon black and vulcanization system and Dynamic Mechanical properties of Natural Rubber	Rubber Chem Review May – June 2015	ISSN 0971 – 1767	IN
4	Dr. Nishamol Kanat Dr. Chandana Basu	Alkulation of Aniline using Methanal own ferro spinels	Global Journal for Research Analysis Vol 4 / Isue 4 / April 2015	ISSN No. 2277 – 8160	IN

5.	Y. V. Ghalsasi	Extractine Separation of Iron and Cobalt using tributylphosphin e oxide as an extractant	Global Journal for Research Analysis Vol 4 / Isue 4 / April 2015	ISSN No. 2277 – 8160		
6	Mr.Yash Punjabi, V.L.Khilnani , Mrs.Padmaj a Damle	The investigation of antibacterial activity of cestrum nocturnum	Pharmacophore 2015 Vol. 6(2), 81-87	ISSN 2229- 5402	Internation al	
	Ms.Preeti R.Dwivedi , Dr.J.K.Ver ma, Dr.Veena Khilnani	Immobilization of a few enzymes on different chelating resins containing Sulphur as donarations	Chemical science review and letters 2015, 4 (13), 320-323	ISSN 2278 – 678	Internation al	
7	Dr.Bhanu Raman Ms.Shweta S.Salunke	Liquid – Liquid extracton of Pol(11) with cyanex 301	PARIPEX Indian Journal of Research	ISSN 2250- 1991	Indian	
	Physics					
1	Smita Survase Madhavi Thakurdesa i A.G.Rao	Role of substrate temperature on Nanocrystalisati on of cdte thin films	Chalcagenide letters August 2015 Vol-12 No.8 407 – 414	Impact factor 1.28	Internation al	
2	Jitendra Pendharkar Manohar Nyayate	Magnetic and Magnets strictive properties of Terfenol- D like alloys	GRT Volume – V Issue-II	Impact factor 3.4052	Internation al	
3	Jitendra Pendharkar Manohar Nyayate	Magnetic and Magneto strictive Properties nd Gadolunium Terfenol D alloy	IJAR Vol.V Issue 9 Sept., 2015	Impact factor 3.624	Internation al	
	Geology					
	Sharma J. and Saraswati P.K.	Lignites of Kutch , western India, Diaoflagellate	Revise de micropaleontolo jce 58, 2015, 107-119 PP			

		biostrategraphy and Palaeoclemate					
	Swagata Paul, Jyoti Sharma, B.D. Singh, Pratul K. Saraswati, Suryendu Dutta	Early Eocene enatorial vegetation and depositional envir Biomarker and Polymdogical evidences from a lignite- bearing sequence of Cambay Basin, Western India	International Journal of Coal Geology 149, 77-92 PP 2015				
	Zoology						
1	Dr.Vikrant V.Deshmuk h	Effect of Salinity on physiology of Intertidal clam Gastrana Polygona	Bionano Frontier Vol.8(3) May, 2015	ISSN 0974- 0678 Online: 2320- 9593	www.biona no frontier.org.		
	Botany						
1	Kelkar TS, Katdare A.S. Bhalerao S A	" Rice Cropping in Urban Farming with special Reference to AM Gungi	Int J.of Life Sciences Special Issues, A5 / December, 2015	ISSN: 2320- 7817	Internation al		

# **Books published:**

Sr. No	Name of the teacher, co-authors if any	Name of the book	Name of the Publisher	Year of public ation	ISSN / ISBN Details	Your Role: author / co- author / reviewer / editor / co editor
	Geology					
	Dr. G. V. Rao	Text book of				
	(first author)	Engineering	Tech Max			
	Mr. Vishal H.	Geology	Publ.	2015		1 <sup>st</sup> author
	<b>B.Economics</b>					
	Dr.Usha Iyer	Text books for SYJC,	Aishwarya	2015	978-81-	932255-0-9
		FYBCom (I, II)	Publcation	&		-1 -6
		SYBCom (III, IV),		2016		-2-3

TYBCom (V,VI) FYJC, SYBMS, FYBCAF, SYBCAF, TYBCAF, FYBBI (I <ii)< th=""><th>978-93</th><th>- 3-0 -4-7 -5-4 -6-1 -7-8 -8-5 -9-2 85818 – 48-6 50-9 51-6 52-3 53-0 54-7</th></ii)<>	978-93	- 3-0 -4-7 -5-4 -6-1 -7-8 -8-5 -9-2 85818 – 48-6 50-9 51-6 52-3 53-0 54-7
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## Research Projects: University of Mumbai sponsored

Name of the	Name of	Title of the	Ref no and	Amount	Duratio
Teacher-	the Co-	Project	date of letter	receive	n
Investigator	investigato r			d	From-to (year)
Microbiology					
Dr.Lolly Jain	Ms.Divya Chauhan	Isolation of microbial prodiogiosin producer and studying its applications	APD/237/41 9 of 2016 dated 8/2/2016 Project No.193	20,000/	2015- 2016
Mrs.Hemlatt a Chakraborty Physics		Studies on Sideerophone producing bacteria	APD/237/41 9 of 2016 dated 08/2/2016 Project no.194	20,000/	2015- 2016
-					
Dr.Geeta Nair	Ms.Smita Survase	Study of dielectric properties of oil seeds and their	APD/237/18 of 2016	42,000/	2015- 2016

		applications in transformer			
Dr.Meena			APD/237/18	40,000/	2015-
Sharma			of 2016	-	2016
Dr.Venkat	Jitendra	Study of	APD/237/18	51,000/	2015-
(Bandodkar	Pendharkar	magnetic and	of 2016	-	2016
College)		magnetostructiv			
		e properties in			
		alloys of RFe2			
		Compounds			

## **Research Collaboration (With Research Institutes or Industries)**

Name of the Teacher/s  Environme	Title of the Project	Ref no and date of letter	Name of the company/Firm	Duration From-to (year)
ntal Science				
Dr.Sugandh a Shetye	Water Pollution Monitoring of Karjat		Vansanrakshan	2015 till Date
Dr.Sanjay Joshi	Dombivili CET P outlet			
Dr.Sugandh a Shetye & Dr.Sanjay Joshi	Biodiversity Park at Thane		Social Forestry Dept. Maharashtra	Feb., 2016
Dr.Sugandh aa Shetye & Dr.Sanjay Joshi	River Rejuvenation of Mumbai Rivers		MNPS	March 2016
Dr.Sugandh a Shetye	Capacity building program		MMREIS	April, 2016

Dr.Vijay		
Joshi		

### Seminars/Workshops/Conferences/Symposia/talks organized by the Departments:

Sr No	Title/Theme of the event organised	Workshop	L/S/ N/I N	Date	Venue	Name of Resource person	No.of teachers attended	No of studen ts attend ed
	Microbiology	<u> </u>			<u> </u>	<u> </u>	<u> </u>	l
1	Visit to RTIDL Research Innovation Incubation Design Labs.			17/7/ 2015	New Engineering Building	Mr.Gauran g Shetty		M.Sc. II
2	General Discussion on SCIENCE and CUBE	Guest Lecture	L	1/7/2 015	Microbiolo gy PG Lab.	Dr.Arunan Homi Bhabha Centre for Science Education		M.Sc. II S.Y.B.S c
3	Basic Skills in Microbiology	Workshop	L	20 <sup>th</sup> and 21 <sup>st</sup> July, 2015	Microbiolo gy UG Lab	Mrs.Soniya Shetty	Non-teaching	13
4	Enriching Expressions Topic of lecture- Blood and its major components	Guest Lecture	L	12-9- 2015	Seminar Hall, KJSSC	Dr.Hashma thara jabbar	04	74

5	Basic Techniques in Microbiology	3 Day Workshop	L	7 <sup>th</sup> , 8 <sup>th</sup> and 9 <sup>th</sup> Septe mber, 2015	Microbiolo gy UG Lab	Mrs.Soniya Shetty	03	14
6	MICROSCOP E 2015	Inter- collegiate Event	L	02/09 /2015	Seminar Hall, KJSSC	Mrs.Hemla tta Chakrabor ty (Convenor)		133
7	MICROSCOP E 2015	Inter- collegiate Event	L	02/09 /2015	Seminar Hall KJSSC	Mr.Shabib Khan Co- convenor		133
8	Setting Goals Communicat ion Skills and Personality Developmen t	Lecture Guidance session for Biotech and Chemistry students	L	12/9/ 2015	Chemistry Lecture Room	Mrs.Shailaj a Girishanka r	01	11
	Botany			l				
9	Techniques in molecular biology	Workshop	L	24 <sup>th</sup> and 25 <sup>th</sup> June 2015	Nutraceutic al Departmen t	National facility for Biopharma ceuticals, Matunga	08	50
10	"Bonsai Making"	Workshop	L	04/8/ 2015	Seminar Hall and Biology Lab	Mrs.Snehp rasar and Team, Indian Bonsai Society	09	32
	Chemistry			•				
11	Micro Scale Techniques in Chemistry	Workshop	L	18 <sup>th</sup> and 19 <sup>th</sup>	Departmen t of Chemistry	Mr. Abhijit Chavan Dr. Latesh Nikam	16	04

				June		Dr. Pathan		
				2015		Mohd Arif		
12	Radiochemis	Workshop	L	25 <sup>th</sup>	Departmen	Indian	14	63
12	try	Workshop	_	July,	t of	Associatio	14	05
	,				Chemistry	n of		
				2015	,	Nuclear		
						Chemistry		
						and allied		
						scientists		
						Dr. U. M.		
						Kasar		
						Shri S. Salunke		
						Shri		
						Ghanashya		
						m Meera		
						Shri		
						Yogendra		
						Kumar		
13	Hands on	Workshop	L	20 <sup>th</sup> –	Departmen	Staff of	45	Non-
	Training of			22 <sup>nd</sup>	t of	Chemistry		teachi
	Instruments			Augus	Chemistry	Dept,.		ng
	for non-			t,				staff
	teaching			2015				
	staff							
14	National		N	31 <sup>st</sup>	Departmen	Competitiv		147
	level			Augus	t of	e test		
	concept Test			t,	Chemistry			
	in Chemistry			2015				
	Zoology							
15	Handson	Workshop	L	20 <sup>th</sup> ,	Biology	Zoology	Non-teaching	46
	Training in		_	21 <sup>st</sup> &	Laboratory	Staff		
	Instruments			22 <sup>nd</sup>	2000.000,			
				Aug.,				
				2015				
16	Biodiversity	Talk/gues	L	9/1/2	Chemistry	Ms.Lima	06	40
10	conservation	t t	L	016	Seminar	Rosalind.	00	40
	Conservation			010	Hall	Director of		
					Hall	Green		
						Future		
						Foundatio		
						n & Runs		

						NGO		
						Frangipari		
	Accountancy					Trangipari		
		1			T	,		
17	IFRS & IND- AS Convergence & first time adoption for T.Y.B.Com.	talk	L	17/8/ 2015	Seminar Hall	CA Nayasar Parekh	3	130
18	Career Counseling Lecture by QIRC of ICAI for F.Y.B.Com.	Lecture /talk	L	03/09 /2015	"	CA Raja CA Prachi Parekh	03	95
	Biotechnology	/			l	1		
19	Abhyas Mahotsav		L	5 <sup>th</sup> & 6 <sup>th</sup> Augus t	Seminar Hall KJSSC	Separate Report submitted	5-6	50-60 studen ts
	Information To	 echnology						
20	What recruiters are looking at ?	Guest Lecture	L	18-9- 2015	6 <sup>th</sup> Floor, Eng. Bldg.	Ms.Kancha n Mahadesh war HR McDonald s India (S&W)		
	Business Com	munication			l	, ,		
21	Sexual Harassment	Guest Lecture	L	4/7/2 015	Semina Hall	Dr.Chayani ka Shah Member, WDC Univ.of Mumbai	10	110
22	Interview Skills	Workshop	L	31/8/ 2015	и	Dr.Madhav i Gokhale Associate Prof.S.P.In stitute of	05	60

						Technolog		
						У		
	Business Ecor	nomics						
23	Euro bond	Talk	L	21/11	Seminar	Dr.Rajlaks		112
	Euro			/2015	hall of	hm		
	currency				College	Principal		
	,				· ·	Nirmala		
						College		
						Kandivali		
						Mumbai		
24	Career	Seminar	L	Sept.	Semnar	Dr.Perumu	06	105
	Counselling	Cum			Hall	la from		
		workshop				TISS devet		
		·				studies		

#### Student support mechanism for coaching for competitive examinations

Sr.	Name of the	Name of the faculty In-	No. of students
No.	Competitive exam	charge	beneficiaries
	Microbiology		
01	CSIR-NET, SET, GATE	Mr.Shabib Khan	M.Sc. Students + Other
			Department M.Sc. student
			4130
	Geology		
02	NET/SET	Deepak Sahu G.V.Rao	
	UPSC	Deepak Sahu G.V.Rao	
	JAM9	Deepak Sahu G.V.Rao	03

# Activities organized by the students/(initiatives taken by students to organize any event) Fair, Exhibitions

Name of the	Names of the	Class	Venue	Date	Level (L
activity	student involved				/S/N/
					IN)

Microbiology					
Workshop on Basic Techniques in Microbiology	M.Sc. II students	M.Sc. II	Microbiology UG Lab	20- 21/7/20 15	L
IQAC Open Day		M.Sc. II students + T.Y.B.Sc. and S.Y.B.Sc.	Microbiology UG Lab	5	L
MICROSCOPE 2015	FY, SY, TY volunteers		Seminar Hall KJSSC	02/09/2 015	
Enriching Expressions	FY, SY volunteers		Seminar Hall, KJSSC	12/9/2015 Session	First
Commerce					
Open day	20 students	T.Y, S.Y	Display Galaxy	29/7/20 15	
Biotechnology					
Biozone	SY, TY, MSc II Students (45)	SY, TY, MSc II	Seminar Hall	7 <sup>th</sup> and 8 <sup>th</sup> July 2015	L
Chemistry					
IQAC Open day	33	M.Sc. II	Dept. of Chemistry	29 <sup>th</sup> July 2015	L
Economics					
Poster Presentation for Open day on 29/7/2015	2 poster on Empt, Poverty, Inflation, Population	SYBCom.	Physics senior Lab	29/7/20 15	S
<b>Information Techno</b>	logy				
FunFiesta	Marmik Patel, Aikya Mamnia, Ronit Shah, Krush,,,ank Thakkar	F.Y.IT & T.Y.IT	6 <sup>th</sup> flr., Eng.Bldg.	15-9- 2015	L
Geology					
Geo Quiz	All students of UG & PG	TY/SY/FY/MSC	Geo Lab	August., 2014	Local
Geo Gems	All students of UG & PG	TY/SY/FY/MSC	Geo Lab	Feb., 2015	Local
Computer Science					
Aglle	Afreen Khan, Aadil Khan	T.Y.B.Sc. IT	K.J.Somaiya	15/09/2 015	Local
EVS					
Convergence	M.Sc. I & M.Sc.II	ALL	KJSSC	22, 23 Jan	Local

# Special Awards received by students (e.g. Presidents medal, etc.) (Local/College/University/State/National/International)

	Name of the				
Sr. No.	Student	Details of award	Event	Date	L/S/N/IN
1	1) Ms.Rachit	I Prize (Cash 1250/-)	51st AD Shroff	15/9/2015	Local
	(TYBMS)	II Prize (Cash 1000/-)	memorial		
	2) Ms.Hira Q.	III Prize (Cash 750/-	Elocution		
	(TYBCom)	(Prizes Sponsored by	Competition		
	3) Mr.Path	Forum of Enterprises	organized by		
	(TYBCom)		Economics		
			department		

#### Remedial coaching:

Sr.		No of			
No	Names of Faculty	students			
•	involved	attended	Class	Dates	Subject
	Chemistry				
1	Dr.Bhanu Raman,	90	FYBSc	28/8/2015 to	Chemistry (All
	Dr.Kalpana Naik,			11/9/2015	Papers)
	Dr.Bright Philip,				
	Dr.Sugandha Shetye,	20	SYBSc		
	Dr.Veena Khilnani,				
	Dr.Chandana Basum				
	Dr.Nishamol Kanat,				
	Dr.Vanita Kulkarni,				
	Mr.Saurabh Shetye,				
	Mrs.Ashwini Duri				
	Economics				
1	Mrs.Chitra Trehan	66	F.Y.	13/2, 22/2, 25/2	FC/ECO
2	Dr.Usha Iyer	20	S.Y.	15/2, 16/2	Eco
	Accountancy				
1	Mr.Ravi Jain		F.Y.B.Com.	10 <sup>th</sup> & 11 <sup>th</sup> Feb.,	Accountancy
	CA Nikhil Phansekar			2016	
2	CA Nikhil Phansekar		S.Y.B.Com.	12 <sup>th</sup> & 13 <sup>th</sup> Feb.,	Accountancy
				2016	
3	CA Manisha Damle		T.Y.B.Com.	15 <sup>th</sup> & 17 <sup>th</sup>	FA-I, Tax Costing,
	CA Atul Thatte		T.Y.B.Com.	16 <sup>th</sup> & 18 <sup>th</sup>	Auditing IAPM
	CA Nikhil Phansekar		T.Y.B.Com.	20 <sup>th</sup> Feb., 2016	

#### Details of gender sensitization programmes:

A talk on Sexual	July, 2015	110	Dr.Chayanika Shah, Member, WDC of
Harassment			Mumbai

#### **Industrial Visits:**

	Name of the	No of			
Sr.	Industry/Destinatio	students			Teachers
No.	n	attended	Class	Dates	accompanied
	Accountancy				
1.	Visit to BSE	60	T.Y.B.Com.		CA Atul Thatte & Pooja Matlani (Unaided)
	Biotechnology				
2	Anil Bioplus, IHGR, MSU Agriland, Gujrath, Ahmedabad & Baroda Eco Microbial	24	SYBSc & TYBSc	27 <sup>th</sup> July to 1 <sup>st</sup> August, 2015	Mr.Jayesh Bhagat Dr.K.Z.Marolia
	Nutraceuticals		1		
3	Go Cheese /Manchor Pune	18	M.Sc.I	7/2/2016	Dr.Veena Salvi Ms.Purva Medhi Ms.Tejal Bawlekar

#### Field Trips/Excursions:

Sr. No.	Name of the Destination	No of students attended	Class	Dates	Teachers accompanied
	Microbiology	attended			
1	Homi Bhabha Centre for Science Education	21	M.Sc. II	25/7/2015	Mr.Shabib Khan Dr.Turbhekar (visiting faculty)
2	One day workshop in Basic Techniques of Animal Tissue Culture	21	T.Y.B.Sc.	26/8/2015	Mr.Shabib Khan
3	Visit to Sula Wines Nashik	25(TY) 20 (M.Sc.II)	T.Y.BSc. and M.Sc. II	03/09/2015	Dr. Lolly Jain Mrs.Soniya Shetty Mr.Shabib Khan
4	Visit to Karmveer Bhaurao Patil College VITEK – 2 & Advance Phase Contrast Microscope	52	S.Y.B.Sc.	7, 8, 9, 10 <sup>th</sup> September, 2015	Dr.Lolly Jain  } 7 - 8 <sup>th</sup> Mrs.Hemlatta Chakraborty } September Dr.Unnati Padalia  } 9-10 <sup>th</sup>

					September
	Zoology				
4	Godrej Mangrove, Vikroli	36	TYBSC	21/07/2015	Dr. Veena Srivastava Dr. Vikrant Deshmukh Dr. Amol Patwardhan
5	Vivek Agrapharma Bhalivali, Taluka- Vasai, Dt.Palghar	79	SYBSc	28/08/2015	05- Dr.M.C.Sathe Dr.V.V.Deshmukh Dr.A.Patwardhan
6	FSI Coloba Mumbai Sasusun Dock landing Centre & Marine Research Vessel	13	M.Sc.II	7/10/2015	01- Dr.V.V.Deshmukh
7	CIFE (Central Institute of Fisheries Education, Varsova, Mumbai)	60	T.Y.B.Sc. M.Sc.	08/01/2016	04- Dr.Veena Srivastava Dr.Rajendra Nayak Dr.Vikrant Deshmukh & Ajay Tripati
8	Phansed Wild –Life Sanctuary	25	S.Y.B.Sc. T.Y.B.Sc. M.Sc. II	26 <sup>th</sup> Jan to 30 <sup>th</sup> Jan., 2016	Dr.Amol Patwardhan Dr.Shreya Patil Dr.Shanti Upadhye
	Botany				
9	Kankeshwar		SYBSC TYBSC	04/07/2015	Dr. A. S. Katdare Dr. Ms. Anjali Ratnakar Dr. Ms. Veena Salvi
	Information Technology	T	T		
10	Visit to expo at Bombay Exhibition Centre, Goregaon (AV Technology – Infocomm)	42	T.Y.B.Sc. IT	03-09-2015	Mr.Prakash Patil Ms.Anushree Sukhi Ms.Mousmi Pawar
	Computer Science	ı	T		
12	Infocomm A/V Technology Bombay Exhibition Centre	03	T.Y.CS S.Y.CS	03/09/2015	Mr.Prakash Patil Ms.Mousmi Pawar

					Ms.Anushree Sukhi
	Nutraceuticals		I	I	
13	K.J.Somaiya Hospital Sion, (Bolonical Garden)	20	M.Sc.I	12/2/2016	Dr.Veena Salvi Ms.Purva Medhi Ms.Tejal Sowlekar

#### **Members of Editorial Boards of Journal:**

Name of the teacher	Name of the Journal	National/Intern ational	Your Role		
<b>Business Communication</b>	1		1		
Dr.Hemangi Bhagwat	Abhinav	National	Advisory Committee		
Geology					
Dr.G.V.Rao	IJSER	International	Editor		

#### **Parents Meet:**

Date	No of parents attended	No of students attended	Class
	Microbiology		
26/06/2015	Parent of 08 students		S.Y.B.Sc.
26/6/2015	Parent of 14 students	03	T.Y.B.Sc.
	Commerce		
26/6/2015	15	15	S.Y.B.Com.
27/6/2015	15	15	T.Y.B.Com.
	Zoology		
26/6/2015			T.Y.B.Sc.
27 <sup>th</sup> June, 2015			S.Y.B.Sc.
	Botany		
26/06/2015	15	15	S.Y.B.Sc.
27/06/2015	08	08	T.Y.B.Sc.
	Biotechnology		
28/06/2015	16	16 + 3	S.Y.B.Sc.
29/06/2015	13	13 + 2	T.Y.B.Sc.

	Chemistry		
26/6/2015	17	-	SYBSc
27/6/2015	61	-	TYBSc
	Economics		
26/7/2015	10	30	SYBCom
27/6/2015	15	15	TYBCom
	Biochemistry		
27/06/2015	10	10	TYBSc
	Statistics		
26/7/2015	14	30	SYBSc
27/6/2015	13	25	TYBSc
	Physics		
26/06/2015	13	13	SYBSc
27/06/2015	10	10	TYBSc

**Development programmes for support staff:** 

Date	Name of the programme	Venue	Names of staff	Designations
	Zoology			
20/7/201 5 & 21/7/201 5	Basic Technology in Microbiology	Microbiology Laboratory	Mr.Deepak Mr. Rohit	Lab.Attendan t Lab.Attendan t
27/7/201 5	Image Building	Seminar Hall	Mrs.Prachi Pednekar Mr.Deepak Mr.Rohit	Lab.Attendan t Lab.Attendan t Lab.Assistant
	Chemistry			
20 <sup>th</sup> to 22 <sup>nd</sup> August, 2015	Hands on Training of Instruments	Dept.of Chemistry	45 non-teaching staff of the college participated	

#### **DEPARTMENT ACTIVITIES**

#### **REPORTS**

MATHLETICS-Department of Mathematics

22ND DECEMBER 2015

Department of Mathematics, K. J. Somaiya college of Science and Commerce paid a tribute to Mr. Srinavasa Ramanujan a great mathematician from India on his 128th birthday i.e. 22nd December 2015 by hosting an event which was totally based on mathematics called MATHLETICS. Srinivasa Ramanujan Iyengar FRS was an Indian mathematician and autodidact who, with almost no formal training in pure mathematics, made extraordinary contributions to mathematical analysis, number theory, infinite series, and continued fractions. Thus his birthday 22nd December is celebrated as National mathematics day.

The number of participants depicts the success of the event, as being held for the first time of its kind MATHLETICS witnessed 127 participants.

All the competitions which were held were mathematics based. Various events under different domains such as creativity, quiz competition, treasure hunt, solve errors and mini games were the part of MATHLETICS 2015. Under creativity there were different competitions such as mehandi competition, nail art, rangoli competition and logo competition.

The logo of the winner in the logo competition was selected as the logo of MATHLETICS.

Treasure hunt was the biggest success as it witnessed maximum participants. Students from various classes (FY, SY, TY Bsc) well coordinated among each other to organize all the competitions in an organized way. There were students from junior college also who were very well engaged in volunteering for the competitions. The contribution of teachers in guiding the students in organizing the events successfully was also appreciable.

The students who emerged victorious in various competitions were felicitated by the faculty members. Mr. Omkar Girkar from Ruia College was rewarded by giving the title as 'MAN OF MATHLETICS 2015' for his great performance throughout the event

ZORILLA 2015-16- Bee A Zoo ManYak-Department of Zoology

The department of Zoology organized annual intercollegiate event called "ZORILLA" on January 15<sup>th</sup> & 16<sup>th</sup>, 2016 in K.J.Somaiya College of Science & Commerce, Vidyavihar. It was Zorilla's fifth consecutive year. It was inaugurated on 15<sup>th</sup> January, 2016 by honorable Principal Dr. Vijay Joshi. There were 11 various events under the fest, namely – Photography, poster making, tattoo making, quiz, group discussion, talent hunt, treasure hunt. Each event had unique theme to promote the subject zoology.

This year there was photography cum exhibition and the theme 'Sea & Human' attracted many participants. Like every year, treasure hunt was full of fun & enthusiasm. Group Discussion was the new entrant to the event's list. Poster Making with theme 'If animals could speak!' was an event to speak for the ones who can't speak i.e. animals. Students conveyed the message of animal conservation through this. Talent hunt was a platform for the students to showcase their talent like singing, animal mimicry, acting, just a minute etc.

Zorilla aims at promoting zoology & bringing the students from junior college to PG from various subject together.

Teachers & students played their unique roles to make the event a grand success.

TOTAL NO. OF PARTICIPANTS WERE: 376

TOTAL NO. OF COLLEGES PARTICIPATED: 16

IN HOUSE STUDENTS: 321

STUDENTS FROM OTHER COLLEGES: 55

# Department of Chemistry & Indian Association of Nuclear Chemists and Allied Scientists (IANCAS)

One Day DAE BRNS-IANCAS Workshop on Radiochemistry

Saturday, 25<sup>th</sup> July, 2015

Time: 9.00 am-6.00pm.

One day workshop on Radiochemistry was conducted by the department of chemistry in association with Board of research in Nuclear Science and IANCAS ,BARC, Mumbai on 25<sup>th</sup> July 2015. The workshop was attended by 53 students of Chemistry (TYBSc) and 10 M.Sc. Biotechnology Students and staff members of Department of Chemistry. Dr. Sugandha Shetye was the local coordinator for organizing the workshop.

Mrs. Nutan Navelkar felicitated the guests with a flower bouquet. Dr. R. Acharya gave a brief account of IANCAS activities and Mr. Chaturvedi, Coordinator gave a brief idea about the workshop to all the students. Dr. Chandana Basu introduced the Chief Guest Dr. AVR Reddy.

It was inaugurated by the Chief Guest Dr. A.V.R. Reddy, President, IANCAS and Former Head, Analytical Chemistry Division, BARC. Dr. Reddy gave a keynote address on "Role of Chemistry in Department of Atomic Energy Program" which was followed by a Tea Break. After the Break, Mr. T.P.Chaturvedi gave an interactive speech on "Radiation Detection and Measurement" and Dr. Raghunath Acharya gave a lecture on 'Utilization of Nuclear Reactor and Particle accelerator for Radioisotope Production and Research activities" after the lunch.

All the three resource persons explained the basic concepts of production of nuclear power, need for Nuclear Energy program of India, detection and measurement of radioactivity and applications of radioisotopes in various fields with several examples and images in a very lucid manner.

Mrs. Navelkar in her presidential address encouraged students to interact with the scientists from Department of Atomic Energy and get optimum advantage of the expertise offered by the BARC National Laboratory.

Dr. Sugandha Shetye formally proposed vote of thanks.

The theory session was followed by Laboratory session. Dr. U.M.Kasar explained the principle and calculations for the experiments to be performed in the laboratory . Two instruments GM counter and Scintillation counter (Na-Tl Detector) were brought for doing following experiments:

- Shri Sanjay Salunkhe and Shri Ghanshyam Meena demonstrated and conducted following experiments and students were engrossed in doing these experiments. Detection of radiation and study of GM plateau, Operating voltage, Dead time of a GM tube and statistical measurement.
- 2. Shri Yogendrakumar and Dr. U.M.Kasar showed, explained and helped students to carry out Separation of the barium isotope and Determination of half life of Ba<sup>137</sup> isotope using Na (TL) detector.

At the end of the workshop Principal Dr. Vijay Joshi handed over the certificates to all students.

#### Workshop on Sexual harassment

Date: 13.07.2015

Resource Persons: Dr Chayanika Shah, Member, wdc, University of Mumbai, Visiting

Faculty, TISS

In this workshop ,Dr Chayanika Shah sensitized the students about the gender discrimination by having an interactive mode with the students. She explained the term sexual harassment and asked students to share their experiences. Guidelines were provided to deal with such experiences and the available support systems. Few students shared their problems with the resource person after the session was over. There was extremely good feedback about the session from the students as well as the staff members.

No. of Students attended: 110No. of Teachers attended: 10

Women Development Cell

#### Extension Committee- Workshop on Warli Painting

Mrs. Anjali Majumdar began the session with a brief introduction to warli art, the tribal culture and the background for this form of painting. Participants were introduced to the basic elements and forms used in warli painting, followed by hands-on practice session using pencil. Suggestions regarding the errors done while drawing and in the proportions of figures were also made. Participants were asked to paint their imagination, using a paintbrush on a terracotta/gheru color paper which forms the true way of warli painting. This was followed by painting on an envelope and earthen pot. The concluding session comprised of augmenting the thought process by showcasing few masterpieces made by veterans as yardsticks and guidelines for future and personalized warli painting. The enthralled participants were awarded with a Certificate of Participation. A registration fee of Rs. 100/- was collected from all the participants and material was provided to them.

#### **Participants**

- 61 Total,
- 02 Participants from S.K.Somaiya Degree College.
- 01 Participant from K.J.Somaiya, IT College, Sion.
- 02 participants from SIMSR.
- 01 participant from The Somaiya School.
- 21 teacher participants from Junior and Degree college, KJSSC.

01 participant from Office staff, KJSSC.

33 student participants from KJSSC.

1	Organizer	Extension Committee 2015-2016
2	Date/time of the	4 <sup>th</sup> July 2015, 12.30 pm to 3.00 pm
	event:	
3	Type/venue of	Workshop/Junior Biology Laboratory, 2nd
	event:	Floor, KJSSC.
4	Topic of the event	Warli Painting
5	Resource persons	By Mrs. Anjali Majumdar, Ex- vice principal
		and Head, Dept. of Microbiology, KJSSC
6	No of participants	61 Total,
		02 Participants from S.K.Somaiya Degree
		College.
		01 Participant from K.J.Somaiya, IT College,
		Sion.
		02 participants from SIMSR.
		01 participant from The Somaiya School.
		21 teacher participants from Junior and
		Degree college, KJSSC.
		01 participant from Office staff, KJSSC.
		33 student participants from KJSSC.
7	Brief report of the	Mrs. Anjali Majumdar began the session
	event	with a brief introduction to warli art, the
		tribal culture and the background for this
		form of painting. Participants were
		introduced to the basic elements and forms
		used in warli painting, followed by hands-on
		practice session using pencil. Suggestions
		regarding the errors done while drawing and

provided to them.
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#### Parent Teachers Meeting (PTM)

Date: Friday 26<sup>th</sup> June 2015. – S.Y.B.Sc., S.Y.B.Com & S.Y. unaided courses

Saturday 27<sup>th</sup> June 2015 –T.Y.B.Sc., T.Y. B.Com., and T.Y. unaided courses

Venue: For Science & Commerce streams – Science & Commerce college premises.

For Unaided courses 6th floor of Annexe building.

**Resource persons:** H.O.D. and all the staff members of the respective departments.

#### Brief write up of the event:

The aim of the meeting was to interact and discuss with parents about the attendance of their ward, credit system, examination, cultural activities, departmental activities etc.

The meeting was very interactive and there were many queries from the parents which were satisfactorily answered by the teaching staff.

#### The main points discussed were as follows:

- 1. Defaulter's list to be uploaded on the website.
- 2. Parents were informed at length about the credit based semester system.
- 3. Various career options for their wards were discussed.
- 4. Parents were briefed about various departmental activities, industrial visit, field visit, etc.

#### Some of the grievances of the parents were:

- 1. Results to be declared on time.
- 2. Railway concessions to be given without hassles.
- 3. Common room facility for girls & boys.
- 4. More counters to be provided during admission process.
- 5. PTM should be preferably held on Saturdays.

The parents expressed their desire to have such meetings quite often. The visited the laboratories in the faculties that have laboratory and also observed class rooms and library.

Meeting ended with a cup of tea and the parents left satisfied.

(Dr. Veena Srivastava)

Convenor,

Attendance Committee.

#### Induction Programme for First \year Students

**Date:** Saturday 25<sup>th</sup> July 2015. – All First Year students (Aided and unaided courses).

Venue: K.J. Somaiya Engineering College Auditorium.

Induction programme was conducted in four sessions.

First session- Time 9.30 am to 11.00 am
 Class F.Y. B.Com
 No. of students attended 237.

Resource person: Prof. Subhash Krishnan, Convenor, Examination Committee briefed students on all aspects of examination in detail.

2. Second session – Time 11.30 am to 1.00 pm

Class: F.Y. B.Sc. IT and F.Y. B. Com (Acoountancy & Finance, Finance markets) and F.Y. B.M.S.

No. of Students attended: 236.

Resource person: Mrs. Leena Kharkhanis, Mrs. Meenal Deepnaik, Mrs. Monica Lodha. They briefed the students in detail about the examination system in their respective fields.

3. Third session- Time 1.30 pm to 3.00 pm.

Class: F.Y.B.Sc. A,B & C divisions.

Number of students attended: 188.

Resource person: Dr. Lolly Jain.

4. Fourth session- Time 3.15 pm to 4.45 pm.

Class: F.Y.B.Sc. D & E divisions. Number of students 276.

Resource person: Dr. Lolly Jain.

All resource persons at the four sessions informed the students about examination system, credit based semester system, marking scheme, grade system, options, choice of electives, importance of attendance etc.

After the presentation by resource persons at each session, Principal Dr. Vijay Joshi addressed the students at length in each session. At the outset, he welcomed all the students for choosing the college for their academic pursuit. He informed the students about the college, its founders, various facilities available to them like sports with large number of choices, a coach who was a national champion, cultural activities ranging from dance, music to dramatics. He spoke about serious issues like importance of attendance, elective courses available.

The Principal instilled lot of confidence in the students. It was a very interactive session with students and he answered all the queries of students very satisfactorily. In each session The Principal presented a single red rose to representative students of the class as a gesture to welcome them to the college. Students went home very satisfied with a smile on their face on receiving a chocolate at the exit gate.

Total number of students attended 936.

(Dr. Veena Srivastava)

Convenor,

Attendance Committee.

Title of the Event: Research Scholars Meet

Date: 21.07.15

Venue: Seminar Hall

Resource Persons: Dr Turiel Senior Research Scientist, Mithibai College, Dr E. Dsouza Former Director Biological Sciences, BARC, Dr Ramana, Head, Dept of Chemistry, University of

Mumbai.

(Name, Designation, Institution)

No. of Students attended: 100 PG Students

No. of Teachers attended: 15

Brief Write up about the event: The convener of the meet Dr Unnati Padalia welcomed the Research scholars and elaborated on the various categories of the Research presentations. The meet was inaugurated by the Chief Guest, Senior Research Scientist, Dr. Turiel. She emphasized the importance of carrying out the Quality research, obstacles faced and challenges to be met. Dr DSouza, the Guest of Honour, elaborated on the importance of carrying out interdisciplinary research projects and publications featured in reputed journals. In all 37 PowerPoint presentations were delivered by the research scholars pursuing MSc by research and PhD programs. This was followed by critical evaluation, question answer session. Of these 26 scholars belonged to Chemistry stream and 11 from Biological Sciences. Dr Ramana and Dr Dsouza presented their FeedBack and commented upon the work carried out by research scholars in the capacity of Research Advisors. Participants expressed their satisfaction and value addition made to their work by Research Advisors. Certificates were presented to all the participants at the hands of Principal Dr Vijay Joshi and other dignitaries.

Dr Unnati Padalia

Signature of convenor

(Name of Committee: Research Monitoring Committee)

Title of the Event: Types of Research and Sources of Funds

Date:11th July,2015

Venue: Seminar Hall

Resource Persons: Dr Krishna Iyer, Professor, Senior Research Scientist, Bombay College of

Pharmacy

No. of Students attended:120 (Packed, on the Aisle)

No. of Teachers attended: 15

Brief Write up about the event:

Convener Dr Unnati Padalia emphasized on the importance of the seminar. The Chief Guest Speaker Dr Krishna Iyer elaborated on various types of Research .He enthralled the students with various incidents he encountered during his Doctoral and Post Doctoral study in Washington , U.S. He narrated his research articles published in the leading Journals like Nature. Each of the articles depicted in the presentation represented each type of Research work like Fundamental Research, Interactive Research, Applied Research, Comparative Research and so on. Students were highly motivated to take up Quality Research Projects. Seminar was graced by Vice Principal Dr. Pradnya Prabhu.

Dr. Unnati Padalia

(Research Monitoring Com.)

Report on Two-day workshop on "Applications of statistics in Biological Science"

The Statistics department organized a two-day workshop on "Applications of statistics in Biological Science" on 3<sup>rd</sup> and 4<sup>th</sup> September 2015. Though this workshop was only for biology majors, but by considering demands of other departments, an introductory statistical workshop was conducted.

This workshop gave an introduction to statistical methods used in various fields such as health, biological, medical sciences and GIS. Specific topics include tools for describing central tendency and variability in data; methods for performing inference on population means and proportions via sample data; statistical hypothesis testing and its application to group comparisons; issues of power and sample size in study designs; and random sample and other study types.

It was not a mathematics workshop and so did not stress derivations of formulae but, rather, gave emphasize the application of statistical ideas and methods to the design and interpretation of biological experiments and comparative data.

Total of 37 participants attended this workshop, which includes 3 faculty members and 3 members from CEED (**Centre for Environment Education and Development Pvt Ltd**).

7th August 2015 SUPER STATISTICIS AND STATISTICIANS

A one-day lecture series was organized by Statistics department of K. J. Somaiya college of Science and Commerce, Vidyavihar on 7th August, 2015, which emphasized on various aspects, applications and the use of studying Statistics subject in further higher levels.

More than 40 statistics students of S.Y.B.Sc. and T.Y.B.Sc. class attended this seminar.

Initiating the session by Mr. Abhijeet Subhash Patil, who has completed

his M.Sc. (Statistics) from university of Mumbai (2009-2011) and graduated from Sathaye college, Vileparle (2006-2009). At present he is working as a senior catastrophe risk analyst which itself brought out the position and importance of statistics. Currently pursuing actuarial science from institute of actuaries he shared his experience about his studies with statistics and made us know about various basic concepts of mean, mode, median and relating them with real life examples i.e. what statistics is? And how is it applied. He also gave us information about actuarial science and how we can study actuaries with statistics combining both of the subjects and actually applying it while analysing any data. He also made us know about various competitive exams and at least participate in them to grow your knowledge and thinking skills wider. He also made us know how statistics is related to each and every field of studies like

finance, research management, biology, economics, commerce, etc. He not only gave us the way to choose our aim but also gave us confidence that the option to choose statistics as our most important and final subject was right and encouraged us studying it very well and knowing more about it. He also shared some of his not only funny but also important moments of educational and college memories and made us know to learn from our mistakes where students lack and try to improve become a master of mistakes further which would help in every moment of life.

Continuing, the session principal Dr. Vijay Joshi also shared many of their educational and funny moments and gave a chance to know about their dislikes and likes in their life in studies. Sir was glad to see all students participated with joy and interactive mood which made session quite impressive and successful. He also emphasized on starting M.Sc. (Statistics) course in our college.

Dr. Ravindra Shetty, Advocate and Patent Attorney spoke on 'Patent' – What? To whom? By whom? Why? How long? He said Patent is an exclusionary right, testimonial right and right for a limited period. He discussed about the need and significance of Patent. He also explained how patent is an incentive for research, technological progress, industrial development and progress. He debated on Patent: A Myth or Reality. He gave examples to explain this. He mentioned on what can be patented and three requirements of Novelty, Non – obviousness and Utility needs to be fulfilled. He made it interesting with examples related to real world scenario such as patent of microorganism, plants, animals.

Dr. Vandana Pradhan. Sr. Scientist, National Institute of Immuno-Haematology was the speaker for the second session. She delivered a very informative lecture entitled "Pointers for Publication." I a very simple way she discussed the various aspects of writing a research paper. Madam emphasized the importance of documentation of each and every work done during any research work. Madam discussed importance of publishing paper with original research results. She also stressed on writing acknowledgement at the end of the paper. A very important suggestion given by madam was to write conclusion in brief which catches reader's attention. The entire session was very useful for all the research students as well as faculties.

Dr. Ranjan Mogre, Director, AVTOS Life Sciences whose session was on "Referencing – A significant tool in Research". He started by saying that a good introduction is necessary as a foundation pillar. Followed by brief history of CAS, database, he also discussed the various services and also threw light on research and documentation. He suggested that care to be taken to check for title, names, publication language and other minute details.

Dr. V. Shubhalaxmi, Founder and CEO, Ladybird Environmental Consulting delivered a lecture on "Grant Writing – the art of story telling". Madam elaborated on proposal writing, submission process and success & failures of grant. Grants are usually provided by funding

agency, limit is mentioned and uploaded on website of the agency. To start with the compatibility of the project is necessary its credibility & Capital fund, finding agencies to fund along with methodology. She also suggested about the evaluation, strategies, budget, budget preparation and summary. She made the session very interactive by including her own experiences.

Dr. Amol Hosing, Senior Scientific Write, Novartis Healthcare spoke on "Guidelines & Ethical considerations in Scientific Writing". He spoke on objectives of scientific publications, guidelines to improve data reporting, uniformity, ensure transparency, integrity of data, interests. He also mentioned about ethical concerns in publications, authorship, study conduct, review process, role of funding source, guidelines for writers also for reporting different study types, data reporting. He touched upon the sponsor and funding agencies role, role of medical writers. He threw light on review process.

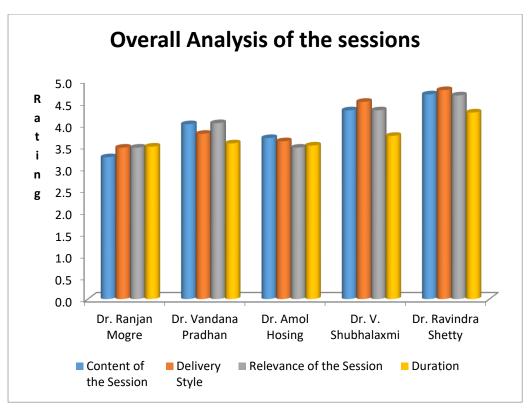
Godavari Refinery Mills (Others) 6

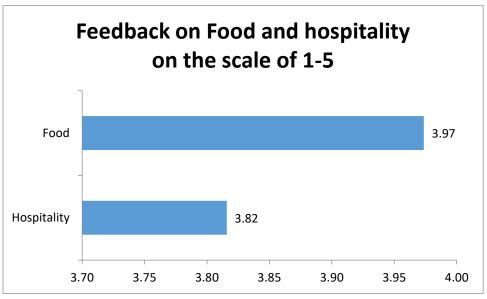
Details of the colleges participated:

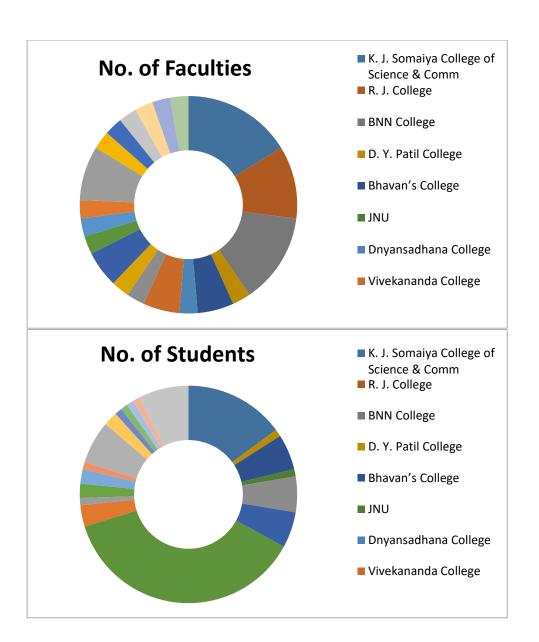
No. of College: 30 Total Students: 94 Total no. of Faculties: 37

#### Feedback Analysis of the Seminar on "Scientific Writing"

Feedback about the content, delivery style, relevance and duration was taken on the scale of 1-5, 1 being very poor and 5 being excellent. Around 140 participant gave their valuable feedback. Feedback was also taken on Feed and hospitality.







Title of the Event: Workshop on 'Basic Techniques in Microbiology'

For Non-teaching staff

(Star College Scheme)

Date: 20th and 21st July 2015

Venue: Microbiology laboratory

Resource Persons: Mrs. Soniya Shetty

Students of M.Sc. part II( Microbiology)

No. of Non-teaching staff attended: 13

Brief Write up about the event: The department of Microbiology conducted a two-day workshop on 'Basic Techniques in Microbiology' for the non teaching staff members of Microbiology and non-microbiology departments. It began with a welcome address by the HOD, Mrs. Shailaja Girishankar who stressed upon the need of equipping our staff with these skills which they require for their day to day working in a microbiology laboratory

Lectures, demonstrations and practicals were conducted for the participants. The topics included

- 1) Culture Media preparation
- 2) Importance of pH in solutions
- 3) Fumigation and washing of glassware
- 4) Working of instruments like autoclave, hot air oven.
- 5) Handling instruments such as microscope, ph meter and colorimeter.
- 6) Aseptic transfer and culture techniques

All the participants were given hands-on-training. The non-teaching staff of microbiology, chemistry, zoology, botany, biochemistry and environmental science departments took part in the workshop. Feedback forms were filled by the participants

Participants were awarded with certificates by the Vice-Principal Mrs. Pradnya Prabhu. The workshop ended with words of appreciation by the HOD and Vice-Principal.

Mrs. Soniya Shetty

Signature of convenor

(Name of Committee )

#### **Department of Environmental Science**

Title of the Event: Panel Discussion on "Climate Change"

**Date:** 23/07/2015

Venue: 516, Seminar Hall, New Engineering Building

**Resource Persons:** The panel comprised the following experts:

#### 1. Dr. NandiniDeshmukh

- District Manager, (Mumbai-Climate Reality, India)
- Founder, ECOPERSONA (NGO for environmental conscience through personality modification)
- President, Rotary Club of Mumbai Shivaji Park.

#### 2. Dr. JanjariJasani

• Environmental Educationist, CERE, Mumbai.

#### 3. Mr. HariChakiya

- Project 35 Trees
- Copywriter

This event was arranged by the US Consulate General. Following officials were present for this discussion.

#### 1. Brittney Stewart,

• Assistant Cultural Affairs Officer, US Consulate General, Mumbai

#### 2. Ms. NityaPillai,

• Cultural Affairs Specialist, US Consulate General, Mumbai.

No. of Students attended: 87

No. of Teachers attended: 04

#### **Brief Write up about the event:**

This event was arranged by the US Consulate General. Department of Environmental Science organized and hosted the event. It began with a welcome speech and opening remarks by Ms. Brittney Stewart. She welcomed the audience on behalf of the US Consulate General. She then explained various programmes conducted by American Center and American Library for the benefit of the students. She also explained how the students can get involved in various activities and programmes. She then introduced the panelists on the dais. Then the session started.

First panelist was Dr. NandiniDeshmukh. She narrated various incidences in her life, her career and how she became an active environmentalist. She told some of her childhood memories and also spoke about her experience in Turkey where she went for International Climate Leader Programme.

Second panelist was Mr. Hari. He explained the concept of Project 35 Trees. During October 2012 to Jan.2013, he and his team went across 35 states and Union Territories to plant the trees. Hari is a copywriter and is in the field of advertising. He shared his career graph, ups and downs concept of "Barefoot College" and how tree plantation drives help in controlling climate change.

Next and the third panelist, Dr. JanjariJasani shared her memory of how her class 11 teacher demonstrated the internal structure of a fish in the classroom and form then onwards, how she developed an affection and love for nature and the environment. After completing her graduation in India, she went to Chicago University in USA for her Masters and Ph.D. programme. Then she came back to India and joined CERE in Mumbai. The sustainability, carbon capping etc are some of her expertise as far as climate change is concerned. She mentioned an upcoming Bollywood film entitled "Aisa Ye Jahan" which would be the first "Carbon Neutral" film in India. She is instrumental in making this film carbon neutral.

After narrations by respective panelists, the session was thrown open for question and answer. Teachers and students asked many questions to the experts which were duly answered by them. The event ended at 12.00 pm. At the end, the experts were felicitated by offering themTulsi saplings and handmade greeting cards beautifully and innovatively decorated by Ms. KrutikaDalvi, Ms. Kruttika Joshi and Ms. PriyankaBaria of M.Sc. Sem III, Environmental Science class. Tea and snacks were provided to all the participants in the end by the US Consulate. During this, many students further interacted with the US officials as well as the panelists.

Dr. Sugandha Shetye Co ordinator, M.Sc. Environmental Science **Library Advisory Committee** 

A book exhibition was organized on 12th August 2015 on the occasion of "National Librarians' Day "which is celebrated in remembrance of professor of library science, Padmashree Dr S R

Ranganathan, who had spearheaded library development in India.

It was inaugurated by Dr. Rajan Velukar; Provost, Somaiya Vidyavihar and Dr Vijay Joshi;

Principal, K.J.Somaiya College of Science and Commerce.

About 2000 reference books and text books on various subjects were displayed in the exhibition. The display dotted several subjects like botany, biotechnology, biochemistry,

chemistry, environmental science, geology, microbiology, mathematics, physics, statistics and zoology. The books from commerce sections include economics, accountancy and business

communication.

The student's response was overwhelming. The efficient library staff guided the students in

dotting down the accession number, author and title of the book, so that students can come back and refer to the book later on. They were surprised to know that our library has a wide

collection of approximately 50000 books.

A special section on the "Gender issues" was displayed in collaboration with "Women

development cell" of our college. The exhibits were based on women and women related

issues. This section also included the literature of women writers.

On student demand the exhibition was extended for one more day. More than 200 students

and staff members availed the benefit of this exhibition.

Title of the Event: Kabir Jayanti Celebration

Date: 11th July, 2015, Saturday

Venue:Seminar Hall

Resource Persons: Mr. K.D.Singh, Hindi Teacher (Retd), K.J.Somaiya College of Sci. & Comm.

No. of Students attended: More than 100

No. of Teachers attended:10

Brief Write up about the event:

Literary association celebrated 'Kabir Jayanti' as its inaugural program for the year 2015-16.

The program began with the campus prayer by Ms Savita Moghe. Shri K.D.Singh, the teacher

(Retd) from Hindi Department of Junior College was chief guest and speaker for the program.

Dr. Mrinalini Sathe, the convenor welcomed the gathering. Dr. Unnati Padalia did the

compering with her usual ease and wit. Vice-Principal Shri Bhogesir spoke about his association with Shri K.D.Singh. Mrs. Sudha Agrawal introduced the chief guest speaker with a brief introduction to the life and work of Saint Kabir. Shri K.D. Singh narrated the life sketch of Sant Kabir, and cited Doha with the detailed meaning; which left the audience enthralled.

In order to encourage students to read Sant Kabir related literature, four books were added to the Central Library at the hands of Shri.K.D.Singh. Participation of several students from junior and senior college by singing, citing dohas with meaning contributed towards the fulfillment of the objective of the program. Mrs. Savita Moghe's melodious rendering of Sant Kabir's bhajan made the function lively and left the audience spellbound. Ms. Vaishali Nikumbh, Hindi teacher from Jr.College proposed the vote of thanks. The program ended with the National Anthem.

The seminar hall was full to its capacity, with more than 100 students and teachers from junior and senior college making the event a grand success.

Mrinalini Sathe Convenor (Literary Association)

#### A Mega Festival - Rasayan-2015 Report

- Date: 21<sup>st</sup> November, 2015
- Venue: Department of Chemistry, K.J.Somaiya College of Science & Commerce
- Motto:
  - > To unite the students of Chemistry under one banner though a chemistry fest.
  - > Reduce, Reuse, Recycle, Recreate and an environment friendly approach.
- Correspondence done through:
  - ➢ Google mail-id (Rasayan 2015.kjssc@gmail.com)
  - Rasayan's official web site- www.rasayan.cf
- Events:

- > Ten different events related to Chemistry were organised. Inovative and creative ideas were used to convert topics from and out of Chemistry syllabus into fun exciting games or models of rasayan.
- > Exhibition: 57 charts were prepared which had impeccable information on various intra disciplines of Chemistry.
- > Stationary or live demonstrations:

#### • Participation:

- Volunteers: 40 students from undergraduate ,30 students from Junior college and 20 M.Sc Part-II students.
- > Event participation: 137 participations from 66 participants for 10 different events.

Praises of Rasayan not only resonated from the participants but also from teachers of other participating colleges. Rasayan was a huge success and we hope that this would be continued with same zeal and enthusiasm by the students.

1	Organizer	IQAC 2015-2016
2	Date/time of the	29 <sup>th</sup> July 2015, 9.00 am to 4.00 pm
	event:	
3	Type/venue of event:	Visit / KJSSC all departments and Campus
4	Topic of the event	OPEN DAY- 2015 FOR SCHOOL STUDENTS AND TEACHERS
5	Resource persons	Welcome address by Dr. Vijay Joshi, Principal, KJSSC
6	No of participants	16 Schools

		251 school Students
		29 School Teachers  150 Volunteers from M.Sc. II, S.Y.B.Sc. and Junior college.
7	Brief report of the event	The open day – 2015 was conceived with a view to kindle the enthusiasm and interest in the young minds of school students. It is a rare opportunity provided to the ninth and tenth standard students to witness the facilities of a renowned college in their vicinity and to acquaint them with the different oppurtunities available for them to pursue ahead in their career and succeed. Right from Commerce subjects to pure sciences, they tasted the flavor of all the subjects. The schools were also asked to send forward recommendations of two economically backward meritorious students for consideration for admissions to Junior college to sync with the founders vision of 'EDUCATION FOR ONE AND ALL'.  Dr. Vijay Joshi, Principal, KJSSC welcomed all the school students and teachers with a brief introduction to the facilities of the KJSSC in the Somaiya School Auditorium. The schools were grouped into 10 groups and were guided by 2-3 volunteers. The M.Sc students took charge of explaining and handling the visits within the Departments.  It was an enthralling experience for the college students as well as the school students. The feedback obtained from the school students was a boost to dream and organize many more such events in future.

Title of the event: Nature Club inaugural lecture

Date: 9th July 2015

Venue: Seminar Hall

Resource person: Mr. Sunil Joshi. Former entrepreneur, Great Outdoors; Freelance Trainer

for outdoor activities

No. of students attended: 48

No. of Teachers attended: 04

**Brief write-up about the event:** 

Mr. Sunil Joshi, introduced a variety of outdoor activities conducted in water, land and air. Then he talked about hiking, trekking in general; Do's and Dont's for hiking. He also shared his experience of a 2600 km walk in Norway.

Finally he talked about the experience of his month-long stay with the nomadic Shephard (Dhangar) tribe of Maharashtra. Also he explained how they survive in the open without walls, environment friendly making of Blanket.

#### Signature of the Convener,

**Nature Club** 

Title of the Event: MICROSCOPE- 2015

Date:02/09/2015

Venue: SEMINAR HALL, K.J.SOMAIYA COLLEGE OF SCIENCE AND COMMERCE.

Resource Persons: EXTERNAL JUDGES FOR THE EVENT

- 1) Prof. Mrs. Seema Ronghe, Associate Professor, Head Department of Microbiology, SIES College
- 2) Dr. Sneha Panwalkar, Co-ordinator Department of Biotechnology, G.N.Khalsa College
- 3) Dr. Meenal Dukhande, Assistant Professor in Microbiology, G.N.Khalsa College

INTERNAL JUDGES: (K.J.Somaiya College of Science and Commerce)

- 1) Mrs. Supriya Janabandhu, Associate Professor in Botany,
- 2) Dr. Amol Patwardhan Assistant Professor in Zoology.
- 3) Mrs. Hemangi Kotibhaskar, Assistant Professor in Biotechnology

(Name, Designation, Institution)

No. of Students attended: TOTAL 133 participants

No. of Teachers attended:----

Brief Write up about the event:

#### **MICROSCOPE-2015**

# **Explore Life under Lenses**

2<sup>nd</sup> September ,2015: Like every year this year too, the Department of Microbiology, organized their annual Inter-Collegiate fest MICROSCOPE- 2015. This year it was organized under Star College Scheme. In all 133 participants participated in the event. The event witnessed students from Ruia College, SICES College, Vaze College, CHM College, K.J Somaiya College of Science and Commerce, L.D Sonawane College.Sophia College and Bhavans College It was a one day event which consisted of Power-Point Presentations, Poster Presentations, Biorangoli, Hocus-Focus, Neuron Chakravyuh, Ad-Mad show, Micro-Combat, Spell-Bee, Arabian Nights and How Deep Is Your Love For Biology?

The day began with registrations and after that was the inauguration of the fest. Vice-Principal Dr. Pradnya Prabhu, Dr. Sneha Panwalkar, Co-ordinator Department of Biotechnology, G.N.Khalsa College and Prof. Mrs.Shailaja Girishankar Head, Department of Microbiology K.J.Somaiya College of Science and Commerce, were the dignitaries present at the Inauguration The inauguration function started with the campus prayer and after that the judges for the event were introduced and felicitated. After the inauguration, the first event i.e. Powerpoint presentation started. Dr. Sneha Panwalkar and Prof. Mrs. Seema Ronghe, Associate Professor, Head Department of Microbiology, SIES College were the judges for Powerpoint Presentation. Simultaneously, Biorangoli and Poster Presentation, Hocus-Focus were held. Dr. Meenal Dukhande, Assistant Professor in Microbiology, G.N.Khalsa College and Mrs. Hemangi Kotibhaskar, Assistant Professor in Biotechnology , K.J. Somaiya College of Science and Commerce were the judges for Poster Presentation and Biorangoli. Dr. Amol Patwardhan Assistant Professor in Zoology K.J.Somaiya College of Science and Commerce was the judge for Hocus-Focus event. The elimination rounds for Neuron Chakravyuh and Spell Bee were conducted before lunch and the results of the same were displayed. Mrs. Supriya Janabandhu, Associate Professor in Botany, K.J.Somaiya College of Science and Commerce judged the Micro -Combat Ad-Mad show and How Deep Is Your Love For Biology? events after the lunch. Final rounds of Neuron Chakravyuh and Spell- Bee were conducted after the lunch. . The participants showed great enthusiasm and it was a good show. Even after having a busy and fun filled day, the energy of the participants had not died down and it was reflected during the most important and awaited event i.e. the Arabian Nights. It was the star event of the fest and everyone had fun during this event. Finally, there was the valedictory function where the efforts of the participants as well as the volunteers were appreciated.

MICROSCOPE -2015 was sponsored by Hi-Media Laboratories. F.Y.B.Sc., S.Y.B.Sc. and T.Y.B.Sc. students worked as volunteers for the events. Mr. Mihir Gilbile from F.Y.B.Sc. ,Ms.Devyani Dongre and Mr. Srinjoy Chakraborty from S.Y.B.Sc. were the co-ordinators for MICROSCOPE-2015. Teaching and non teaching staff of the Department of Microbiology extended their support for the event. Mrs. Hemlatta Chakraborty worked as Convenor and Mr. Shabib Khan worked as Co-Convenor from Department of Microbiology for MICROSCOPE-2015.

Overall, MICROSCOPE 2015 was a grand success.

#### **MATHLETICS**

KJ SOMAIYA COLLEGE OF SCIENCE AND COMMERCE, 22 ND DECEMBER 2015

Department of Mathematics, K. J. Somaiya college of Science and Commerce paid a tribute to Mr. Srinavasa Ramanujan a great mathematician from India on his 128<sup>th</sup> birthday i.e. 22nd December 2015 by hosting an event which was totally based on mathematics called MATHLETICS. Srinivasa Ramanujan Iyengar FRS was an Indian mathematician and autodidact who, with almost no formal training in pure mathematics, made extraordinary contributions to mathematical analysis, number theory, infinite series, and continued fractions. Thus his birthday 22<sup>nd</sup> December is celebrated as National

mathematics day. All the students came up with bright and ingenious ideas to make it a grand success.

Dr. Vijay Joshi, Principal inaugurated the event. He encouraged the students and wished them success for the event. It was an inter-collegiate event where students from various colleges came to compete and show their mathematical skills. The number of participants depicts the success of the event, as being held for the first time of its kind MATHLETICS witnessed 127 participants.

All the competitions which were held were mathematics based. Various events under different domains such as creativity, quiz competition, treasure hunt, solve errors and mini games were the part of MATHLETICS 2015. Under creativity there were different competitions such as mehandi competition, nail art, rangoli competition and logo competition. The logo of the winner in the logo competition was selected as the logo of MATHLETICS. Treasure hunt was the biggest success as it witnessed maximum participants. Students from various classes (FY, SY, TY Bsc) well coordinated among each other to organize all the competitions in an organized way. There were students from junior college also who were very well engaged in volunteering for the competitions. The contribution of teachers in guiding the students in organizing the events successfully was also appreciable.

The students who emerged victorious in various competitions were felicitated by the faculty members. Mr. Omkar Girkar from Ruia College was rewarded by giving the title as 'MAN OF MATHLETICS 2015' for his great performance throughout the event.

#### Workshop on English Communication Skills for students of T.Y.B.Sc. (Mathematics)

The department of Mathematics conducted a workshop on english communication skills for students of T.Y.B.Sc.(Mathematics) on the 7th of September, 2015. The objective of this workshop was to develop a good communiacting spirit among the students. The event commenced at 8 40 a.m. The resource person was Dr. Hemangi Bhagwat. Students were asked to introduce themselves at the beginning to promote as an ice breaker. Basic grammar concepts such as tenses were elaborated. The importance of other factors like eye contact, body language, posture etc were stressed upon. Towards the end the students were asked to talk about any topic of their choice. This boosted their morale and helped them to understand the requirements of good communication skills. The entire session lasted for an hour. The session served as a platform to display their speaking skills with effective participation. The event was a huge success.

Subhash Krishnan

1	Organizer	Extension Committee 2015-2016
2	Date/time of the event:	22nd July 2015 10.00 am to 12.00 noon
		26th July 2015 8.00 am to 10.30 am

3	Type/venue of event:	Workshop – Competition
)	Type, venue of event.	22nd July 2015: Seminar Hall
		26th July2015: Yeur, Thane
1	Tanic of the avent	PHOTOGRAPHY SIMPLIFIED
4	Topic of the event	
5	Resource persons	Dr. Amol Patwardhan, Assistant Professor, Department of
_	No. of continuous	Zoology, K.J.Somaiya College of Science and Commerce.
6	No of participants	The weakshop had an even-halming response and the
7	Brief report of the event	The workshop had an overwhelming response and the participants were very happy with the nature trail and they learnt a lot from the above experience.  Dr. Amol Patwardhan has an inherent liking for photography. Most of the things he has learnt on his own. He explained all the intrinsic aspects of the camera and photography to the participants with minute details such as location of the flash light, intensity of light, precision in capturing the photograph, etc.  He led all the participants during the Forest trail to Yeur, Thane where all the participants were required to click photographs and send one of the best for a competition. The following students photos were awarded the prize:  First prize:- Ms.Bhakti Tikam  Second prize:- Ms.Darshana Sawardekar  Third prize:- Ms. Varsha Jagtap & Ms. Rutuja Bhatade
1	Organizer	IQAC 2015-2016
2	Date/time of the event:	29 <sup>th</sup> July 2015, 9.00 am to 4.00 pm
3	Type/venue of event:	Visit / KJSSC all departments and Campus
4	Topic of the event	OPEN DAY- 2015 FOR SCHOOL STUDENTS AND TEACHERS
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Overall, MICROSCOPE 2015 was a grand success.

Title of the Event: Inauguration of "Geo Express"; Date: 16/July/2015

**Venue:** Room No 309 **Time:** 9.50 am to 10.40 am

**Resource Persons:** Head and Faculty of Department of Geology

No. of Students attended:65

No. of Teachers attended:Two

# **Brief Write up about the event:**

Under the auspices of the Earth Science Circle, 'Geo Express' a newsletter to showcase the talents and achievements of the students and staff of Geology Department was inaugurated. The Geo Express will keep a monthly track of the academic and co curricular activities and achievements of the students and staff of the Department of Geology.

The newsletter will highlight current geological events related to India and round the globe. In addition a brain teaser, crossword related to earth science, humorous anecdotes will be contributed by student and staff.

The Editorial Board will comprise students from each class. The student editorial board will be mentored and guided by the department faculty. The content will be published following approval of Head, Geology (Chief Editor)

Dr. G. V. Rao Head, Geology 16/7/2015

Organizer of the event: IQAC

**Title of the Event:** Image Building (for non teaching staff)

**Date:** 27<sup>th</sup> July, 2015

Venue: Seminar Hall

**Resource Persons:** Ms. Deveeka Shetty, Image Consultant

No. of non teaching staff attended: 27

No. of Teachers attended: 02

# **Brief Write up about the event:**

Ms. Deveeka Shetty made the participants realise the importance of body language. Body language makes up almost 70% of one's communication, whereas verbal communication only 7% the rest is tone of voice.

She organised all the participants in 4 groups and asked everyone to observe others in their group. This helped the participants analyse various gestures and differentiate the positive versus negative body language. Ms. Deveeka also emphasised on positive thinking.

Dr. Pradnya Prabhu

(IQAC)

# Report on ICE-CREAM MAKING WORKSHOP

1	Organizer	Extension Committee 2015-2016
2	Date/time of the event:	9 <sup>th</sup> July 2016
3	Type/venue of event:	Workshop
4	Topic of the event	Ice-cream making workshop
5	Resource persons	By Mrs. Alpa Bhanushali
6	No of participants	05 participants: 03 nonteaching staff, 02 teaching staff
7	Brief report of the event	On request from the office staff, the extewnsion committee organised an ice-cream making workshop. Mrs. Alpa Bhanushali taught them the basic two bases used in ice creams: Vanilla and Choclate. She then demonstrated the making of Oreo ice-cream, fresh fruit icecream, Mango icecream and roasted almond ice cream. She also made

dry fruit Kulfi and choclate Kulfi. Detailed notes as well as
certificates were provided to the Participants.
All the participants were very contended at the end of the
workshop.

1	Organizer	Extension Committee 2015-2016
2	Date/time of the event:	10 <sup>th</sup> August2015 11.00pm to1.00 pm
3	Type/venue of event:	Botany Lab
4	Topic of the event	Cake making and cake decoration
5	Resource persons	Mrs.Alpa Bhanushali
6	No of participants	31
7	Brief report of the event	A cake making workshop was successfully conducted .It was well responded by students, teaching and non teaching staff from junior and senior college. Mrs. Bhanushali gave a demonstration of how to bake a cake in the pressure cooker. She also shared ideas of cake decoration and allowed participants to personally try out under her supervision.

# Cultural Forum: Annual Report 2015-16 Team Achievements

48th Intercollegiate Youth Festival (Zone II)		
Event		Rank
Event	Category – Performing Arts (Theater)	<u> </u>
1	Monoacting (Hindi)	III
2.	One Act Play (Hindi) – "Panchkam"	III
3.	Skit (Hindi)	II
4.	Skit (Marathi)	III
		Consolation to finals
5.	Mime	II

6.	Folk Dance (Hojagiri)	III
		Consolation
		to finals
Even	t Category – Fine Art	
1.	Clay Modeling	1
2.	Collage	II
3.	Spot photography	Consolation
		to finals+
Even	t Category – Literary Art	
1.	Elocution B	III
Even	t Category – Music	
1.	Indian Group Song	1
2.	Classical Vocal	consolation
3.	Indian light Vocal	I
Hoia	giri folk dance pranali TY IT	
Hoja	giri folk dance pranali TY IT	

# फेस्टमध्ये थिरकल्या लोककला

# युथच्या स्पर्धात्मक फेरींची जल्लोषात सांगता; कॉलेजिअन्समध्ये उत्सुकता चॅम्पिअन्स ट्रॉफीची

कॅम्पस रिपोर्टर : रोहित पोखरकर, रसिका तेलगे

नाट्य, नृत्य, कला, संगीत, लीटररी अशा पाच मुख्य विभागातील अनेकविध स्पर्धांमधून विद्यार्थ्यांच्या कलागुणांना वाव देणाऱ्या मुंबई विद्यापीठ आयोजित ४८ व्या युथ फेस्टिव्हलची बुधवारी जल्लोषात सांगता झाली. चर्चगेट येथील शाहीर अमरशेख सभागृहात विविध राज्यांचे प्रतिनिधित्व करणाऱ्या नृत्य स्पर्धेने युथच्या स्पर्धात्मक फेरींचा शेवटचा दिवसही दणाणून सोडला. गुजरातचा दांडिया रास, आसामचे बागरुबा, सौराष्ट्राचे टीपणी नृत्य, छत्तीसगडचे पणती नृत्य, मणिपुरचे नाई, त्रिपुराचे कोजागिरी नृत्य तर आदिवासी समाजाचे प्रतिनिधित्व करणारे होळी-नाटवा तसेच डांगी नृत्य, माडिया जातीतील ठाकुर समाजाचा ढोल नाच, आगरी समाजाचे प्रतिनिधित्व करणारे आगरीनृत्य आदी नृत्याविष्कारां<u>नी</u> कलासंस्कृतीने नटलेल्या युथ फेस्टिव्हलची अंतिम फेरीही दरवर्षीप्रमाणे अविस्मरणीय ठरली.

सभागृह व्यासपीठावर...

मुंबई विद्यापीठाचे कल्चर समन्वयक आणि

एकेकाळी युथ फेस्टिव्हलचा भाग असलेले निलेश

सावे यांनी गायलेल्या सन आयलाय गो नारली

पनवेचा. या गो दांड्यावरना अशा कोळी गीतांवर

. विद्यार्थ्यांनी ठेका धरत व्यसपीठ दणाणून सोडले.

प्रेक्षागृहात बसलेल्या युथप्रेमींनी जल्लोष केला.

अटीतटीच्या झालेल्या या स्पर्धेत विवा कॉलेज, विरार आणि डीबीजे-चिपळूण यांनी पहिल्या क्रमांकावर बाजी मारली, तर दसरा क्रमांक गाला कॉलेज, सेंट गोन्सालो गार्शिया कॉलेज, वर्तक, मिठीबाई यांना विभागून देण्यात आला. तर रुपारेल कॉलेज, इंदिरा गांधी, पोदार, कणकवली, डहाणूकर यांना तिसऱ्या क्रमांकावर समाधान मानावे लागले. गर्बा फेम गायक, आर. जे. राजेश भारोत, राजस्थानचे गायक प्रबुद्ध पांडे, प्रसिद्ध लोककला नृत्यांगणा गायत्री वाघमारे या मान्यवरांनी यावेळी नृत्य स्पर्धेच्या परिक्षणाची जबाबदारी पार पाडली.

महाराष्ट्रातील विविध ७ जिल्ह्यांमधून मुंबई विद्यापीठ संलग्न २०० महाविद्यालयातील जवळपास १० हजार एवढ्या मोठ्या संख्येने विद्यार्थ्यांनी युथ फेस्टिव्हलमध्ये सहभाग घेतला होता. दरवर्षीच युथमध्ये जोशी बेडेकर, मीठीबाई, सी.एच.एम., पोदार या महाविद्यालयांमध्ये काटे की टक्कर पाहायला मिळते. युथ फेस्ट २०१५ च्या ओव्हरऑल चॅम्पियनशिपमाती नियमानुसार पुढील वर्षापर्यंत प्रतिक्षा करावी लागणार असली तरीदेखील २०१४ च्या चॅम्पियन्स ट्रॉफिचे विजेते म्हणून घोषित झालेले पोदार (प्रथम), जोशी बेडेकर (द्वितीय), मिठीबाई (तृतीय) या महाविद्यालयांच्या पुढील वर्षी घोषित होणाऱ्या चॅम्पियन्स ट्रॉफी मिळवण्याच्या आशाही द्विगुणीत झाल्या आहेत.

युथ फेस्टिव्हलचे व्यासपीठ हे प्रत्येक उभरत्या कलाकारासाठी खुप महत्वाचे आहे. कारण; प्रत्येक कलाकाराला हे व्यासपीठ वेगळी ओळख निर्माण करुन देते. युथचा दर्जा दिवसेंदिवस वाढतच आहे. अंतिम दिवशी सादर झालेले नृत्याविष्कार हे खरोखरचं थक करणारे होते. भविष्यात युथ ही उमद्या आणि दर्जेदार कलाकारांची मोठी फळी उभी करेल यात शंका नाही.



# काटा आणणारी 'तपिश'!

१९ व्या शतकाच्या सुमारास बंगालमध्ये सती प्रथा बंद झाली. त्याकाळात विधवांमध्ये हिस्टेरीया नावाचा आजार फैलावला होता. ज्यामळे या विधवांमध्ये शारीरीक वासना वाढन त्या विचलीत होत असत. स्त्रीयांच्या अस्तित्वासाठी झगडणारी एक विधवा 'तिपश'मधून समोर आली.

# रांगोळीतून समाजप्रबोधन

समाजातील अनेक स्तरांमधून आज स्त्रीया तसेच मुलींना खेळासाठी विरोध केला जातो. खेळाची आवड आणि गुणवत्ता असूनही मुर्लीना मैदानी खेळ खेळण्यापासून वंचित ठेवले जाते.

# यथ फेस्टिव्हल लक्षवेधी जवा नवीन पोपट हा...

एकेकाळी युथ फेस्टिव्हल गाजवणारे आजचे आघाडीचे गायक 'सिद्धेश जाधव' आणि 'आदर्श शिंदे' यांनी युथ फेस्टिव्हलच्या अंतिम दिवशी उपस्थिती लावून युथच्या जुन्या आठवणींना उजाळा दिला. दोघांनीही युथ फेस्टच्या दिवसांत सादर केलेले दार उघड गं आई, दार उघड...हा गोंधळ आणि देवा श्रीगणेशा...ही मानवंदना सादर करत संपूर्ण सभागृह दणाणून सोडले. आदर्शच्या आवाजातील देवा तुझ्या गाभाऱ्याला..या गीताला उपस्थित तरुणांनी प्रचंड दाद दिली. तर नवीन पापेट हा ह्या गाण्याने सगळ्या सभागृहाला आदर्शने थिरकायला भाग पाडले.

रांगोळीच्या रंगांतून मुलींना खेळासाठी प्रोत्साहन देणारे चित्र युथ फेस्टिव्हलच्या फाईन आर्ट्स इव्हेंट अंतर्गत साकारण्यात आले होते. कबड्डी, टेबल टेनिस. खो-खो. क्रिकेट अशा विविध मैदानी खेळातील स्त्रियांचा उत्साहपूर्ण सहभाग या रांगोळ्यांमधून रेखाटण्यात आला होता.



clay modeling in youth



# IINDIAN PEOPLES THEATRE ASSSOCIATION BEST ACTOR Apoorva padval , Rasika jadhav FY IT



#### LOKANKIKA TOP5





# प्रतिनिधी, मुंबई

लोकसत्ता लोकांकिका'स्पर्धेच्या रविवारी मुंबईत प्रभादेवी येथे झालेल्या मंबई विभागाच्या प्राथमिक फेरीतून



'लोकसत्ता लोकांकिका' स्पर्धेत मुंबई विभागीय प्राथमिक फेरीत के. जे. सोमय्या महाविद्यालयातर्फे सादर करण्यात आलेल्या 'शिकस्ते इश्क' मधील दृश्य.

मुंबई विभागीय अंतिम फेरीसाठी पाच एकांकिकांची निवड करण्यात आली. यात 'एक्स-प्रीमेंट'- म. ल. डहाणूकर खाडे ), 'अर्बन'-महाविद्यालय (लेखक व दिग्दर्शक-भावेश सूर्वे, कुणाल शुक्ल),

'सुशेगात'- रुईया महाविद्यालय (लेखक व दिग्दर्शक अभिजीत महाविद्यालय (लेखक व दिग्दर्शक ऋषिकेश कोळी), (पान २ वर)



# INDIAN NATIONAL THEATRE



**TOP 20** 

**INT OPEN HINDI** 

TOP 5



#### **CULTURAL FORUM 2015-2016**

The cultural forum had organized an inaugural function on the auspicious occasion of guru purnima,31st July, 15. The inaugural ceremony commenced with the lighting of the lamp by our beloved principal, Dr.Vijay Joshi, Vice principals, Dr.A.G.Bhoge and Dr. Pradnya Prabhu. Our principal addressed the gathering about the objectives, values and motto of cultural forum to students. During the inaugural function ,Principal Dr.Vijay Joshi felicitated vice principal Mr. A. G.Bhoge.

The students were enlightened by the glimpses of cultural forum in the form of powerpoint presentation. Mrs.Supriya Naik,Cultural Forum convenor, declared the cultural committee of students for year 2015-2016.

The main aim of cultural forum is nurturing the growth of young students , their leadership skills and hidden talent with required initiatives

.Programme continued with melodious songs by students.

Finally it ended with a great applaud for the cultural forum.

**Title of the Event:** Workshop on "Introduction to instruments & apparatus in chemical laboratories through chemical reactions"

2<sup>nd</sup> Batch 1.30 pm - 5.30 pm

**Venue:** Analytical Lab, Chemistry seminar Hall, Chemistry Research labs and Instrumentation

lab (6<sup>th</sup> floor, Engineering Building)

**Resource persons:** Head and Faculty of Department of Chemistry

No. of Students attended: 73 No. of teachers attended: 06

# Brief write up about the event

This workshop was organized for T.Y.B.Sc (Chemistry) students to build up their interest in research activities by showing practical aspects of different chemical techniques/instruments which are the part of their syllabus. The workshop provided students with knowledge of instruments & apparatus for synthesis like magnetic stirrer, overhead stirrer, Sonicator, Microwave, Heating Mantle etc. Also work up systems like solvent extraction, downward distillation and purification techniques such as column chromatography, TLC, steam and Vacuum distillation were demonstrated. Organic/Inorganic compounds were studied with an

emphasis on methods for preparation, various coolants for the reactions and handling airsensitive compounds.

Quantitative chemical analysis was done using different type of instrumental techniques such as Gas chromatography, HPLC, Spectrophotometry. Spectroscopic characterization of organic/inorganic compounds was demonstrated with techniques like IR, NMR etc.

Mrs. Nutan Navelkar
Head, Department of Chemistry

**Title of the Event:** Hands on Training on Instruments

Date: 20<sup>th</sup> August,2015-22<sup>nd</sup> August,2015

**Timing:** 7:30 am- 9:30 am.

Venue: Physical Laboratory, Department of Chemistry, K. J. Somaiya College of Science and

Commerce

**Resource Persons:** Mr. Saurabh A. Shete, Mrs. Ashwini Duse, Mrs. Sheetal Jadhav ,Miss Trupti Tawde, , Miss Geetanjali Sahu, Miss Seema Siddique, Mr. Arjun Pandhrey , Mr. Mithun and Dr. Promod Wagh , teaching staff of Chemistry Dept. of K.J. Somaiya College of Science and Commerce.

# No. of Non-Teaching Staff attending the Workshop:

A workshop titled "Hands on Training on Instruments" was organized jointly by Department of Chemistry and Department of Zoology from 20<sup>th</sup> August,2015-22<sup>nd</sup> August,2015 for the Non-Teaching Staff ( Lab Assistants and Lab Attendants ) of K.J Somaiya College of Science and Commerce. The workshop began with a presentation on Laboratory Safety by Mr. Saurabh A. Shete, teaching staff of Chemistry Department. The staff were informed regarding the handling of hazardous chemicals and how to deal with their spillage. Mr. Saurabh stressed on the use of Personal Protective Equipment in the laboratory. The successive session included "Hands on Training" on instruments like conductometer, potentiometer, pH meter, colourimeter, spectrophotometer and triple distillation. The training was provided by Mrs. Ashwini Duse, Mrs. Sheetal Jadhav, Miss Trupti Tawde, , Miss Geetanjali Sahu, Miss Seema Siddique, Mr Arjun Pandhrey, Mr. Mithun and Mr. Promod Wagh, the teaching staff of Chemistry department. They explained the Standard Operating Procedure of instruments to the non-teaching staff and suggested some precautions to them in handling these instruments.

The non-teaching staff were happy with the training provided to them and requested more of such workshops in the near future.

Signature of Convenor

# Report of the Workshop organised by the Department of Chemistry on Microscale techniques.

**Title**: Microscale Techniques in Chemistry

**Dates**: 18-19<sup>th</sup> June 2015

Venue: Department of Chemistry

#### Names of the resource persons:

1. Mr. Abhijit Chavan, Assoc Prof. S.P.College, Pune.

- 2. Dr. Latesh Nikam, Assoc. Prof and Head, Department of Chemistry, B.G. College, Pune.
- 3. Dr. Pathan Mohd. Arif, Maulana Azad College, Aurangabad.

# No of participants:

In all a group of 20 participants including twelve teachers and four students from the department of chemistry of K. J.Somaiya college of Science and Commerce and four teachers from the affiliated colleges of University of Mumbai were trained in these techniques.

# **Description:**

Micro-scale experiments deal with micro-grams of substances and have the advantage of working with low-cost materials. Micro-scale experiments have several advantages. They saves precious time for preparation, reduce the generation of waste products at the source, enhance safety, lowers costs for chemicals, glassware, equipment, smaller reliance on intensive ventilation systems.

In an intensive programme of two days, the participants were given presentations and demonstrations of the various techniques like the titrimetric and gravimetric methods. On the first day, several titrations such as acid-base, complexometric and redox titrations were carried out by the participants by the use of two burette method. On the second day, the same titrations were carried out by the use of beral pipette. Experiments in the physical chemistry i.e. partition coefficient and viscometer were also carried out on small scale with same accuracy.

**Title of the Event:**Hands on Training on Instruments

Date: 20<sup>th</sup> August, 2015-22<sup>nd</sup> August, 2015

**Timing:** 7:30 am- 9:30 am.

Venue: Physical Laboratory, Department of Chemistry, K. J. Somaiya College of Science and

Commerce

**Resource Persons:** Mr. Saurabh A. Shete, Mrs. Ashwini Duse, Mrs. Sheetal Jadhav, MissTruptiTawde, Miss Geetanjali Sahu, Miss Seema Siddique, Mr.Arjun Pandhrey, Mr. Mithun and Dr.Promod Wagh, teaching staff of Chemistry Dept. of K.J. Somaiya College of Science and Commerce.

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The non-teaching staff were happy with the training provided to them and requested more of such workshops in the near future.

Signature of Convener

# **Accountancy Dept**

#### Report on -

Career Consuncelling lecture by WRIC of ICAI (Western Indian Regional council of Institute of Chartered Accountants of India) on 3<sup>rd</sup> September 2015.

#### Name of the team members of WIRC - ICAI

1) CA. Raja

The Department of Accountancy organized a career councelling lecture. The career councellor form Western Indian Regional Council of (ICAI) Institute of Chartered Accountants of India visited with their team and conducted a lecture from 9.30 am to 10.30 am in the seminar hall of the college. The students of the F.Y.B.com level attended the lecture. Information about the admission to CA Course and how to pursue the CA course was given to students of PPT and by distribution of information brochures. The programme was attended by 95 students.

# **Business Economics Department Event on November 21, 2015**

A guest lecture was organized under the Economics Dept. event on Nov. 21, 2015. Dr. Rajalakshmi, Principal, Nirmala College of Commerce & Economics, Malad was the guest speaker. The topic of the lecture was on "Euro currency and Eurobond market with Greece crisis". About 40 students of T.Y. B.Com. and 10 students of S.Y. B.Com. attended the lecture. The students enjoyed the lecture and were also interested to take up Economics in the Post graduation.

#### **DEPARTMENT OF BOTANY**

Department of Botany for the first time organized inter-collegiate fest 'FULORA-Enjoy The Blossom' on 9<sup>th</sup> December 2015 under Star College Scheme. Total three hundred and eight students from various colleges registered for the grand event. Various activities were planned for the entire day. Nine events were conducted for the participants.

The fest began with the inaugural speech given by Dr. Mrs. S. S. Yeragi, Head, Department of Botany. It was followed by lightening of the lamp by Vice-Principal Dr. Pradnya Prabhu, Dean Prof. Subhash Krishnan and the staff members of Botany Department. All the non-teaching staff members were present for the inaugural function.

The first event was'3<sup>rd</sup> Eye-Photography'. In an hour students were supposed to take a photograph from our campus emphasizing any part of the plant. The honorable judges for the event were Dr. Amol Patwardhan and Mr. Jayesh Bhagat. The winners were Rishiraj Duggal, Shyama Karbelkar, Pratik Shyama and Siddhart Mishra. The event co-ordinators were Dr. Meena Patankar and Dr. Veena Salvi. Jinal Shah and Reshma Kaninde were the student volunteers.

Later on, two events were started simultaneously in S. Y. and T. Y. laboratories. They were 'Shape Me If You Can-Fruit and Vegetable Carving' and 'Shringar-Biojewellary'. Dr. Yogesh Ghalsasi and Ms. Smita Survase as well as Dr. Hemangi Bhagwat and Ms. Reema Khanna were the honorable judges respectively. Student's creativity was seen in these events. They were highly appreciated by judges. Ms. Grishma Garach and Ms. Velencia Colaca were declared as the winners for 'Shape Me If You Can-Fruit and Vegetable Carving' event. The winnesr of 'Shringar-Biojewellary' were Ms. Aarti Dhanawade and Ms. Khayti Gudar. Dr. Anjali Ratnakar and Dr. Vinaya Rane were the event co-ordinators for these two events. The student volunteers were Kajal Maske, Tejaswini Sawant, Rahina Halwai and Aarti Kolpate.

The event 'Create your Greet' was organized to highlight the hidden talent of students. They were expected to make beautiful greetings from fresh or dry plant material. The judges for this event were Dr. Geeta Nair and Mr. Shabib Khan. The winners of the event were Pratibha Tube, Suchita Jabre and Riddhi Bengal. The event was co-ordinated by Dr. Anjali Ratnakar and Dr. Veena Salvi. Pooja Rajam and Nupoor Joshi volunteered this event.

The hallway of second floor was decorated with wonderful creations of 'Floral Art-Floral Rangoli'. They were conveying social messages such as 'Save The Girl Child'. Mr. Prashant Shah and Mr. Atul Thatte performed the difficult task of judging. The winners were- Dhruvi Patel and Manasi Patil, Bhakti Howale and Mahek Jain and Shabnam Shaikh and Renuka Kokane. Dr. Ajit Katdare and Dr. Veena Salvi were the co-ordinators. Bushra Khan and Reshma Kaninde were the volunteers.

Maximum participation was for the event "Eat It Out -Whose First". The participants were given sweet lime. Farhad Khan, Rukhsar Shaikh and Pranay Juwatkar managed to peel and eat the fruit in minimum time. Dr. Ajit Katdare, Dr. Anjali Ratnakar, Dr. Meena Patankar, Dr. Veena Salvi and Dr. Vinaya Rane along with Dr. Mrs. S. S. Yeragi very well co-ordinated this mega event. All the students volunteered this event. All the participants enjoyed this event.

In the afternoon, student's general knowledge about plants was judged during the event 'Pehchan Kaun?' Twenty five different plant parts were displayed for identification. Dean Dr. Suandha Shetye and Dr. Vikrant Deshmukh were the honorable judges. Bushra Khan and Pooja Rajam well co-ordinated the event under the guidance of Dr. Ajit Katdare and Dr. Meena Patankar.

'Sirf Ek Minute' was the memory test conducted where fifty different articles were displayed.

The participants were expected to write maximum names of articles within one minute. Mr.

Amit Jethwa was the invited judge. The results were declared and Tanvi Khapare, Anugraha

Menon and Vijaylaxmi Naresh were the winners. Nupoor Joshi and Jinal Shah were the

volunteers for the event. Dr. Ajit Katdare and Dr. Meena Patankar were the co-ordinators.

The students showcased their talent in the event 'Rang Heena Ka'. We got an opportunity to

have a glance at various Indian, Arabic and Indo-Arabic designs of mehendi. Mrs. Kritika

Thakkar and Mrs. Hemal Thakkar were the judges. The event was co-ordinated by Dr. Anjali

Ratnakar and Dr. Vinaya Rane with the help of student volunteers Kajal Maske, Tejaswini

Sawant, Rahina Halwai and Aarti Kolpate.

Department of Botany is very grateful to Principal Dr. Vijay Joshi for encouraging us to

organize the fest. We are also thankful to Vice-Principal Dr. Pradnya Prabhu and Dean Prof.

Subhash Krishnan for their valuable suggestions and motivation.

We would like to congratulate our entire team of T. Y. B. Sc. and F. Y. B. Sc. Students for their

confidence. Our students have taken vey hard efforts to make each of the event a grand

success. Their sincere hard work had made the fest a cherishable event to all.

**Department of Botany** 

**Workshop on Bonsai Making** 

**Under STAR COLLEGE SCHEME** 

Title of the Event : Workshop on Bonsai Making

Date : 4<sup>th</sup> August, 2015

Venue : 10.00 am – 11.00 am Seminar Hall

(Introductory Lecture Demonstration

Open to All)

11.00 am -1.00 am Biology Laboratory

(Hands on training in bonsai making

for registered participants)

Resource Person

Name

Mrs. Sneh Prasar and Team

Designation

Institution Indian Bonsai Society

No of Students 32

attended:

No of Teachers 09

attended:

Brief Write up about the event:

The workshop was conducted in two parts. It began with the campus prayer followed by the introductory talk from 10 am - 11 am in Seminar Hall, about the history, different types, techniques and applications of Bonsai making. During the talk, live demonstration of Bonsai making was also given. Next, the Hands on Training of Bonsai Making was conducted from 11.00 am to 1.00 pm in biology laboratory under the able guidance of Mrs. Sneh Prasar and her team. All the participants including students and faculty members completed the initial training of the plants with enthusiasm. At the end of the workshop, all the participants went home with a spark of curiosity in their mind and a miniature of nature in the form of the bonsai they had just trained.



Mrs Sneh Prasar



Participants and organizers of Workshop



Bonsai in initial training stage

#### Report on -

Guest Lecture on IFRS (International Financial Reporting Standards) & Ind – AS on 17<sup>th</sup> August 2015.

Name of Guest Lecture – CA Nayasar Parekh

Designation – Sr. Manager – Haribhakhti & Sons

Chartered Accountant

The Department of Accountancy organized a lecture on IFRS & Ind – As, first time introduction & convergence for the T.Y B.com students on 17<sup>th</sup> August 2015 from 8.00 am to 9.30 am in the Seminar hall of K.J. Somaiya College of Science & Commerce.

The guest lecture – CA Nayasar Parekh is working as a senior manager in M/s Haribhkati & Sons – Chartered Accountants and has a wide experience in the field of auditing. CA Nayasar Parekh is an alumni of our college and has passed out in the year 2005 – 06.

The programmed was attended by 136 students of T.Y B.com. Copy of the attendance is attached herewith.

Title of the Event: Date: 2/1/2016

Venue: Shaguna Bagh – Malegaon, Neral (An Eco-Friendly- Agro Rural Tourism Setup)

No. of Teachers attended: 5 teachers (IQAC Members)

No. of Nonteaching Staff attended: 46

Brief Write up about the event: The objective of the event is to bring the nonteaching staff near nature andbring a synergy among the staff. Shaguna Bagh is setup since 1985. The place has a great variety of flora and fauna. The place has various agricultural projects like horticulture, Agro forestary, Dairy and Aqua culture. The one day visit was refreshing and being away from the college in a different atmosphere near nature helped us to break the barrier. We would like acknowledge the support rendered by our respected Principal Dr. Vijay Joshi to make this project successful.

Signature of convenor

**IQAC** 

Summary

# One day workshop on Photography

Department of Physics organized one day workshop on Photography on 16/01/2016, under DBT Star College Award Scheme. Dr. Rajendra Mahamuni, head of Photography department of Fergusson College, Pune, was invited as a resource person to conduct this workshop. Workshop was organized in seminar room- CRSGIS, 6<sup>th</sup> floor, New Engineering building. 22

students and all staff members of Physics department along with few nonteaching staff attended this workshop.

As per tradition, workshop began by reciting campus prayer at 10.45 am. Porf. Ranjana Shukl, HOD of Physics, gave brief introduction about the motive of organizing this workshop. Dr. Deepak More gave brief introduction to speakers.

Whole workshop was divided into two sessions. First session started at 11.00 am and was conducted by Dr. Rajendra Mahamuni. This was a power point presentation covering following points

- 1. The role and significance of Photography in society.
- 2. The science of image formation
- 3. The technology of photography
- 4. Aesthetics of photography
- 5. Ethical issues
- 6. Applications of photography
- 7. Photography as career option
- 8. Challenges to photography

After lunch break, Mr. Sarvesh Rajpathak conducted second session, this session was on image processing covering following points

- 1. Light and lighting in photography
- 2. Demo: Portrait lighting
- 3. Image processing and its need
- 4. Demo: Image processing

The workshop ended with vote of thanks proposed by Prof. Anshul Gupta.

# **Parent-Teacher Meeting**

K.J.Somaiya College of Science and Commerce

Title of Event: Parent-teacher Meeting

Date: 27.06.2015

Venue: Room no.001

No. of Parents attended: 61

No.of teachers attended: 08

Brief write up about the event:

The meeting started at sharp 11.00 a.m. Dr.Bhanu Raman ,In-charge ,T.Y.B.Sc. welcomed the parents for this get together. She briefed them about the various activities of the department and in particular about the discipline and punctuality. Dr.Vanita Kulkarni , member,

attendance committee ,emphasized on regularity in attendance . Dr. BrightO'Phillip , told the parents the importance of practicing the organic synthesis by writing several times. Dr.Chandana Basu ,member ,examination committee ,briefed about the different examinations that would be conducted throughout the year and their importance. Dr. Chitra Kamath too interacted with the parents and gave them the necessary guidance.

Mrs.Nutan Navelkar, Head , Chemistry Department also joined to welcome the parents . She personally interacted with each and every one and addressed to their queries. She invited the Vice-Principal, Shri Ashok Bhoge to address the students. Mr. Bhoge , elaborately explained the examination system , abolition of additional examination etc. He also informed the parents that the degree certificate that they will receive will bear Mumbai university logo. Mrs Nilima Deshpande, Registrar of office listened patiently to all the minor grievances which the parents had with respect to office and assured them to address to all their grievances. The parents were given a feed back form to fill their honest opinion about college. The parents were very happy to have been called and expressed that such meetings should be more frequent. Mrs. Madhavi Kate and Mr. Saurabh Shete were also present for the meeting.

Dr.Bhanu Raman

In-charge,

T.Y.B.Sc(Chemistry)

#### **Parent-Teacher Meeting**

K.J.Somaiya College of Science and Commerce

Title of Event: Parent-teacher Meeting

Date: 26.06.2015

Venue: Room no.001

No.of Parents attended: 17

No. of teachers attended: 10

Brief write up about the event:

The meeting for the parents of S.Y.B.Sc. class was held in room No. 001 at 1.30 p.m. The teachers present from the dept. of chemistry introduced themselves along with Mrs. Nutan Navelkar, Head, Dept. of Chemistry and addressed the queries. Dr. Chandana Basu briefed the students about the examination system Dr. Vanita Kulkarni and Dr. Kalpana Naik briefed them about remedial coaching and also importance of attendance. Mrs Madhavi Kate Introduced them with the various departmental activities. Dr. Sungadha Shetye told them about general disciplinein the classes and laboratories. Dr. Bright O' Philip and Dr. Chitra Kamat emphasized on importance of regular studies in the subject of Chemistry. Dr Yogesh Ghalsasi Introduced the students and parents with the Credit Course CCLT. The parents were given a feed back form to fill by Mr. Saurabh Shete, and their honest opinion about college

was expressed in those forms. The parents were very happy to have been called and expressed that such meetings should be more frequent.

However as it was a Friday many working parents could not attend the meeting. Some parents could not attend the meeting due to religious reasons, however they communicated this to Incharge Dr. Vanita Kulkarni through their wards.

# K.J.Somaiya College of Science & Commerce

Title of the Event: T.Y.B.Sc. MICROBIOLOGY Parent-Teacher Meeting.

Date: 26/o6/2015

Venue: MICROBIOLOGY UNDERGRADUATE LABORATORY.

No. of Students attended: 03 students and parent of 14 students.

No. of Teachers attended: 05

Brief Write up about the event: The meeting began at 12:30pm with the introductory speech delivered by the head of the department Mrs. Shailaja Girishankar in which parents were introduced to the department and the infrastructure. The students were motivated to set the goals and work for the same. Dr. Lolly Jain informed the parents about the proposed changes in the Examination pattern for the current academic year and the plans for departmental activities like Industrial visits and MICROSCOPE along with importance of regularity in attendance. Mrs. Soniya Shetty informed the parents about the importance of attendance, proper diet and proposed plans for undergraduate research activities.

Parents also interacted individually with the teachers. Mrs. Hemlatta Chakraborty and Mr. Shabib Khan were also present for the interaction. The parents were asked to express their views and some of the parents appreciated the efforts taken by the faculty members for the overall betterment of their wards and some also expressed their concern over the excessive use of mobile phones, so Department planned to initiate one day activity called "NO MOBILE DAY". Refreshments were offered to the parents.

The meeting concluded at 2pm.

# Signature of In-charge Teacher

Title of the Event: NARESHWADI VISIT: AN IQAC INITIATIVE

Date: 23/12/2015

Venue: Nareshwadi, Dahanu Dist. Palghar

Resource Person: Ms. Petricia and Other officials

No. of Teachers attended: 49

Brief Write up about the event: Nareshwadi Learning Centre, a school for tribal children: Richard Bale, Consul General of Canada in Mumbai, inaugurated a new school building at the Nareshwadi Learning Centre, a school for the tribal students from villages in the radius of 45 km. Nargis Jamal, president of Women's Empowerment International Foundation (WIEF), Canada, and Samir S Somaiya, chairman of Girivanvasi Educational Trust was also present on the occasion. WEIF, located in Edmonton, Canada, Community Initiatives Programme (CIP), Government of Alberta, Canada and the Somaiya Trust have contributed toward building the school. The Nareshwadi Learning Centre campus is in the midst of the Girivanvasi Pragati Mandal's (GVPM) experimental farm surrounded by paddy fields and a fruit orchard abundant with mango, coconut and chickoo (sapota) trees, contributing to an ambiance of spontaneous creativity and learning. The school is situated on a plot measuring roughly 20,494 square feet and is a ground plus first floor structure. There are 10 classrooms, each 660 sq ft, a principal's office, a headmaster's office, staff room, school administration office and washrooms on each floor for girls and boys, and drinking water facility. The computer lab is located in the Vocational Education and Training Centre (VETC). There is a sports ground on the campus which has ample recreational space. Two large exterior walls of the school have six murals by Reena Valvi, a leading Warli artist in the district. The school is approved by the Zilla Parishad and follows the SSC syllabus. Children enrolled at Nareshwadi belong to underprivileged families, and are aged five to 17 years. Ninety-five per cent are from the local Warli tribal community, with the rest coming from Dodhi, Katkari, Kokana and other communities. Of the 775 school children enrolled, 411 live on campus and the rest are day scholars from neighbouring villages. The students are tribal and come from villages in a radius of 45 km. About 2 per cent of the children are non-tribal orphans placed by the Children's Welfare Committee. Girls' enrollment is 46 per cent and there are no dropouts. All education and boarding is provided free of cost. 47 per cent of NLC staff are women and 45 per cent belong to tribal heritage. Performance at the board exams has risen from 13 per cent to an average of 95 per cent over the past five years. Besides this the Nareshwadi Learning Centre is comprised of School, Girls' Hostel, General Hostel, Ankur Project, Solar Thermal Concentrator, Vocational Training centre and Goshala

49 teachers from our college visited the place to have a first hand experience about the activity and understand how we can make a contribution to all these activity. Teachers have donated 60kgs of pulses and 200 notebooks and stationary items to the students. Teachers will decide further action very soon.

# Signature of convenor

**IQAC** 

#### **INDUSTRIAL VISIT**

Department of Microbiology organized an Industrial Visit for S.Y.B.Sc. and T.Y.B.Sc. students from 04th December-11th December,2015 to Bangalore,Mysore Ooty.24 students from S.Y.B.Sc. and 12 students from T.Y.B.Sc. were accompanied by 03 staff members. The students visited Government Botanical Garden and enjoyed local sightseeing at OOTY on 6th December 2015. They visited Pasteur Institute on 7<sup>th</sup> December at Coonoor, Ooty. The visit included a comprehensive lecture on Rabies vaccine by Senior Scientist Dr. Jagannathan followed by visit to the Institute museum which consisted of exhibits demonstrating the development of the institute from it's inception till date. Students were given the demonstration of handling of experimental mice and guinea pigs and were also given information about current trends and career prospects in the world of vaccines and pharmaceutical field. On the return journey students visited a Chocolate factory and Dolphin Nose Point. They also visited a Tea factory where the process of tea leaves harvesting, processing and testing was demonstrated. In the evening students visited Boat club and enjoyed different adventurous games. On 8th December they were taken to Mysore Zoological Park, St. Philomenas church and for shopping local sandalwood handicrafts and Mysore silk textile materials. On 9<sup>th</sup> December the students with faculty visited Central Food Technological Research Institute CFTRI. It's a CSIR Laboratory involved in research on different food technologies. The visit consisted of a lecture by Dr. Prasad (Senior Scientist) in which students were given the information about the basic and advance research being carried out at CFTRI related to food processing, nutrition analysis, quality, taste, molecular biology. Students visited Mysore Palace and Brindavan gardens. Then they started their journey for Bangalore. On 10<sup>th</sup> December visit to Institute of Bioinformatics and Applied Biotechnology IBAB. Was planned where students visited the Molecular Biology Laboratory , Bioinformatics Laboratory and observed displayed Scientific Posters. The return journey started from Bangalore on 10th December and then reached Mumbai on 11th December.

Overall the Industrial visit consisted of interesting visits to reputed institutes of national importance where students could observe the latest technologies and interact with the researchers in different fields of Life Sciences.

# Visit to K.B.P. College, Vashi.

The Department of Microbiology at K.J. Somaiya College of Science and Commerce. Organized a two day extensive hands on workshop on the use and theory of two very important Laboratory instruments, i.e. Vitek 2 and Advanced Phase contrast microscopy. The entire workshop was designed and handled by the entire Dept. of microbiology at K.B.P. College. This workshop proved to be a very important one because it gave us an insight as to

how instrumentation is needed and how it is a crucial part in any and all forms of analysis and research.

Since these two laboratory instrument are the latest in the field of Microbiology. Where in they get to learn the detail of cell cytology with the help of phase contrast microscope and a quick identification of bacterial culture by using a fully automated machine.

26 students participated in the work shop on 7<sup>th</sup> and 8<sup>th</sup>.of September and 27 students participated on 9<sup>th</sup> and 10<sup>th</sup> of September.for the same workshop. 3 staff member also participated in the workshop along with the students.

#### Day 1

The first day, all of the students were asked to assemble near the college at around 10:00 am. The entire batch was then taken to an audio visual room where the entire faculty of the Department of Microbiology was present. The two staff members in charge of the entire workshop were Mrs. Shraddha Patel and Ms. Kavita Jadhav. They introduced the entire staff to all our students. Dr. Thakare, The Head of the Department, (chair person-Board of studies, University of Mumbai.) spoke to us and geared the participants up for the extensive workshop and promised to us that the staff and students will help us in everything we need.

After the inaugural, Mrs. Shraddha Patel discussed with the participants various parameters and rules and guidelines as to how a certain microbial culture is named. Nomenclature and taxonomy is crucial part in any microbial assay. She discussed with the participants various methods as to how a particular microbial cell is named. She put a lot of emphasis on the need of an automated system for nomenclature and identification. The VITEK 2 compact is such a machine. It is a fully automated machine that helps in identifying an unknown microorganism and barely takes a few hours for the analysis. She mentioned to the participants all the procedures that one has to follow while operating the VITEK 2 Machine. The working of the entire system was explained and all doubts were cleared.

After the lecture, we were taken to the Microbiology Lab in the main building. We were separated into groups and an unknown culture was given to us. We were asked to perform Gram's staining to identify whether the given culture is Gram Negative or Positive. This was done to select the card that is supposed to be put inside the VITEK 2 machine. The cards contain various chambers which have various biochemicals that basically replicate major biochemical assays in a very small scale. The different colours obtained are then photo metrically measured and the system analyses what sort of organism is present. The students of the college were very helpful. They were there everywhere to guide us and help us.

At about 1:00pm, after the Gram's staining was done, Participants were given a lunch break.

After the Lunch break, Ms. Kavitha Jadhav proceeded with her lecture on Advanced Phase contrast Microscopy. She talked about the various microscopy techniques and she discussed the importance of the Phase contrast Microscope. She explained to us the working and mechanism of the microscope. She also included the care with which one should handle a microscope and also how a microscope has to be maintained. The lecture winded up at around 4:00pm.

After the lecture on the Phase contrast microscope, the in charge teachers asked us about how the lectures were. We were told get prepped up for the next day because the main work had to be done the next day. The best part about the lecture was that they kept it quite interactive. They promoted question and answer sessions. At around 4:30pm we were cleared to leave and were asked to report at 10:30am the next day.

#### Day 2

All the participants assembled near the gate at 10:30 am in the morning. They were taken to the Laboratory straight away. Again they were divided into two groups. The first group proceeded for the VITEK 2 demonstration. The second group stayed back in the lab and performed a few staining techniques and also performed a wet mount which they were going to observe under the phase contrast microscope. After the staining the participants were asked to keep their slides safe.the participants were then taken for the VITEK 2 demonstration. And the other group went on to perform the staining. Mrs. Shraddha Patel took the entire demonstration of the VITEK 2. First she showed them how to check and adjust the density of the culture with the help of the densichek machine. After adjusting the density the tubes along with the appropriate cards were loaded into the VITEK 2 machine. Where the loading or filling of cards took place. The entire process is automated. After the loading of the cards the cards had to be transferred to another chamber where the cards were sealed and the actual analysis took place. The analysis would take a few hours atleast. We were shown how the computer and software was operated. She explained to the participants, each and every detail about the entire software. She also showed them past records and reports and how they looked like.

After the demonstration of the VITEK 2 all the participants were then showed the Advanced Phase contrast microscope. It was a Multi-use microscope manufactured by Zeiss. The Microscope had a 5 megapixel camera attached to it to capture high definition pictures of the sample. The microscope could even record videos. The best part about this microscope was that it was attached to the computer where in you could edit the picture and also

measure the dimensions of the cells. Ms.Kavita Jadhav took the demonstration and she helped the participants with every minute doubts that they had. She explained to them how the software works. She also showed how one single microscope could be converted to a phase contrast microscope and a fluorescent microscope and also a bright field microscope. The first group had finished the demonstrations before the Lunch break.

At around 01:30pm the participants were given a lunch break. After which there was a short interactive session and a discussion on the instruments were taken.. In the evening the felicitation ceremony took place. all the participants were given a certificate and a feedback form was given to be filled. The teachers asked them about how the entire workshop was and asked if they thought that any changes were needed.. After the entire felicitation they were cleared to leave.

By participating in this workshop, the students got the exposure to handle advanced automated instruments. The students got hands on training on how the identification is done using a VITEK-2 machine. and the advanced phase contrast microscope helped the students in studying cell cytology and motility of bacterium.

# Report.

T.Y.B.Sc .Microbiology students visited Department of Biotechnology G.N.Khalsa College for a one day workshop on Animal Tissue Culture on 26<sup>th</sup> August,2015 under Star College Scheme from K.J.Somaiya College of Science and Commerce.Dr. Lata Joseph and Dr. Sneha Panwalkar were the resource persons for the workshop. The session began with a Lecture on Basic Techniques in Animal Tissue Culture followed by a hands-on session in the Laboratory. The basic technique of Candling of egg, disinfection and dissection to mount chick embryo was demonstrated followed by which every student performed the technique of disinfection and dissection of embryonated chicken eggs. Students were also shown the technique of counting the cells by haemocytometer and the use of Phase Contrast Microscope. The students were taken to Molecular Biology Laboratory to observe the Laminar air Flow, Animal Tissue Culture section and other instruments .Overall the visit proved to be very useful to the students.

#### **VISIT REPORT**

#### SOMAIYA HOSPITAL

The visit to Somaiya hospital blood bank was organized by Dr.(Mrs) Unnati Padalia , Assoc. Professor in the Department of Microbiology for 21 students of S.Y.B.Sc. on 10<sup>th</sup> December,2015. Blood collection,blood fractionation along with plasma and blood bags were shown to students. The techniques like ELISA for detection of HIV antigen and antibody using ELISA reader were demonstrated. Students could also observe Hepatitis B antigen and antibody detection by ELISA. Major and minor cross matching tests were also demonstrated. Students were also taken for a visit to Pathology, Endocrinology and Anatomy museum.

#### Report.

Department of Microbiology organized one day visit to Sula Wines, Nasik for M.Sc II and T.Y.B.Sc. students on 3<sup>rd</sup> September,2015. Four staff members accompanied the students. The session began with a brief introduction to the Sula Wines, delivered by one of the Instructor which consisted of information on production site ,weather and favorable geographical conditions. The students were taken to the production unit, where they observed the raw material processing, fermentation tanks, storage and maturation of wines. They visited the storage section which had exhibits displaying information about Sula wines from its beginning till date.

Overall the visit proved very useful to the students.

#### UGC -HRDC Refresher Course in Environmental Studies (Interdisciplinary)

An Interdisciplinary Refresher Course in Environmental Studies was organized by K J Somaiya College of Science and Commerce under the aegis of UGC Human Resource Development Centre during October 19,2015 to November 7,2015.

The course was conducted successfully under the expert guidance of Principal Dr. Vijay Joshi Chief Co-ordinator of the Course. Dr. Sugandha Shetye looked after the meticulous planning and execution of the entire course as Joint Coordinator of the Refresher Course.

The Theme of the course was 'Environmental Consciousness and Sustainable Development'.

Honourable Vice Chancellor Dr. Sanjay Deshmukh formally inaugurated the course and as promised during inauguration delivered an additional lecture on the last day of the course on 'Use Of Science And Technology Advances To Mitigate Climate Change'.

Forty four participants from various universities in Maharashtra and India from nine different disciplines like life sciences, chemistry, botany, zoology, Environmental Studies, Environmental Sciences, Geography, Microbiology, Biotechnology attended the course and thus it went very well with the spirit of the course. The experts from National research institutions like Bhabha Atomic Research Centre, Tata Institute of Fundamental Research, National Environment Engineering and Research Institute, Mumbai, Centre for salt and Marine chemical research, Bhavnagar, Educational institutions like University of Mumbai, Institute of Chemical Technology, IIT Bombay ,Bombay College of Pharmacy, Kalina, Mumbai ,Industries like Godavari Biorefineries , Waterfield Technologies,Glenmark Pharmaceuticals, NGOs like BNHS, Observer Research Foundation, Samuchit Envirotech ,Pune, Girivanvasi Prakalpa, Dahanu, Ladybird Environmental Consultancies, Centre for Environmental Education and Development (CEED), Somaiya Trust and Govt. Organizations Indian Patent Office were invited to deliver lectures and share their experiences through very interactive sessions. The multiplicity of topics discussed during the course are as follows:

1. Nuclear power and Nuclear Reactors ,Energy conservation and Energy Audit, Urban transportation and solar energy alternatives, Appropriate Technologies

- 2. Membrane Based Desalination and dewatering with focus on indigenous technologies, Rainwater Harvesting
- 3. Principles of Ecology ,Environmental policy , CRZ and watershed management, Biodiversity Conservation beyond tigers and Biomimicry,
- 4. Environment Management, Environment Impact Assay, Climate Change and women
- 5. Sustainable Development and rapid Urbanization, Sustainable initiatives in Rural Development, Citizen Science program
- 6. Chemistry for Better future, Process intensification using nano-structured aqueous solutions, panel discussion on Applications of Polymers, Environmental monitoring, sampling and analysis
- 7. Pollution and Human Health: Air pollution and air borne diseases, Cancer and its causes, HIV-AIDS
- 8. Use of ICT, computer aided learning and research tools
- 9. Research methodology and writing research proposals

**Research Methodology and Grant writing**: Several sessions on grant writing, research methodology, funding agencies and Filing patents for innovative ideas and Intellectual Property rights (IPR) were arranged in order to inspire teachers to write research projects proposals.

**Use of ICT**: The participants were also trained to use simple statistical softwares like R-software and use of MS Excel for statistical treatment and computation and analysis of large amount of data sets. While the lecture sessions were designed to focus on the diversity of environmental issues along with human experience and environmentally safer technologies, Environmental Management, a series of practical sessions were arranged to impart hands on laboratory skills and field experiences to encourage them for research in environmental sciences. Following practical were conducted with the help of department of Chemistry, Environmental Science and Somaiya Centre for Experiential Learning.

- 1. Principles of Green Chemistry- Atom economy , Solid state solvent free reactions, Microwave based reactions,
- 2. Determination of Air Pollution Tolerance Index of different plant species .

Field work: two field activities were planned as an experiential learning.

**1.E-Volve Workshop**: Nature offers live laboratory for demonstration of multitude of principles, the managers need to understand *viz.* **interdependence, competition, partnership, co-evolution, diversity** and **sustainability which are the Ecological Principles A** half day innovative and interactive workshop E –volve was conducted by Dr. Dhanya Nambiar, Director,Centre fore Environmental Education at Maharashtra Nature Park to introduce these principles through activities and an innovative method of teaching.

2. **Measurement of Tree Carbon Sequestration in the Somaiya Vidyavihar Campus** . The participants computed the Carbon sequestered by the trees planted in the SVV campus under the guidance of Mr. Prashant Mahajan.

A **field trip** to Indian meteorological department, IMD at Colaba was arranged to learn the weather forcasting, early warning systems in case of natural disasters like cyclones and floods. The participants also visited recently introduced online air pollution monitoring technologies SAFAR and Radar Doppler system for weather monitoring.

Assignments: The participants were given several assignments during every week like Seminar on the topic of their specialization with environmental aspects, Group discussion on current environmental issues and Preparing and presenting a Research Project Proposal in front of the expert evaluators like Dr. A.K Srivastava and Dr. A.V. Karnik ,University of Mumbai, Dr. S.D.Samant ,Institute of Chemical Technology, Dr. Behnaz Patel, Ruia College, Dr. Sasikumar Menon,Therapeutic Drug Monitoring Lab,Mumbai and Dr. Shubhalaxmi from BNHS.The variety of topics discussed during these sessions reflected their concern and multitude of topics for interdisciplinary research.

**Excursion:** After all the assignments are completed ,a full day excursion was arranged to Tansa and Modaksagar dams which supply water to the citizens of Mumbai on 5<sup>th</sup> November,2015. The participants learnt the mechanism of dam , water supply and distribution from the Chief Engineer Mr. Rajesh Tamhane, Municipal Corporation of Greater Mumbai(MCGM).

**Guest and Visitors**: The course participants were graced by interaction with some distinguished personalities from University of Mumbai, UGC and University of Texas, M.D. Anderson Cancer Centre .

- Dr. Rajan Welukar, Provost Somaiya Vidyavihar and Former Vice Chancellor, University of Mumbai discussed *the challenges in Higher Education* with the participants.
- Dr. H. Devraj , Vice Chairperson of University Grants Commission also made a brief visit during the Course and addressed the participants on various initiatives taken by UGC to encourage teachers for *innovative teaching learning programs and research initiatives*.
- Dr. S .Mani,Co Director of the Metastasis Research Centre and Centre for Stem Cell And Development Biology at MD Anderson Cancer Centre discussed the *causes of cancer and environmental pollution* along with the latest research in cancer treatment.
- Dr. Anand Karve, Founder and Director, Appropriate Rural Technologies Institution a veteran who have won the Ashden Award for world renowned technologies for rural areas was invited as chief guest for the valedictory function. He narrated his views on rural technologies like smokeless stoves, solar cookers, biomass fuels which is apt to the theme of the course. Dr.Shanthi, Director, UGC HRDC has extended her guidance and constant support from the inception of the course for successful completion of the various events. It would not have been possible to conduct this Interdisciplinary Course without her support, flexibility, vision and emphasis on quality of the resource persons and time management. Somaiya

Management has provided hostel and transport for field visits for the course participants during the entire course.

The Faculty members Dr. Sanjay Joshi, Mr. Chinmay Khanolkar and nonteaching staff Mr. Ajay Pol and Mr. Amit Yadav from the Department of Environmental Science have taken sincere efforts to make all the arrangements for hospitality, experimental sessions and seminar sessions throughout the course with smiling faces to make the program a grand success.

Dr. Sugandha Shetye,

# **Induction Programme**

#### Report

Title of the workshop: One day Orientation for postgraduate students and New teaching Staff

Venue: auditorium of The Somaiya School(TSS), Somaiya Vidyavihar.

Date: 16th December 2015

No of Participants Students and Staff:

M. Sc. Part I-73

M. Sc. Part II-90

M. Com.(I & II) Students- 40

New teaching staff- 28

Resource persons:

- 1. Provost Dr. Rajan Welukar and Principal Dr. Vijay Joshi
- 2. Mrs. Shailaja Girishankar
- 3. Mrs Manisha Damle
- 4. Mrs Usha Iyer

Induction programme for M. Sc. Part I and Part II and M. Com part I and part II students as well as for newly appointed teachers in the degree college was organized on 16<sup>th</sup> December 2015, at the auditorium of The Somaiya School(TSS) ,Somaiya Vidyavihar.

The **objective of the programme** was to brief the post-graduate students and new teachers about autonomy as well as to give the schedule of next semester.

The session began at 10:30 am for M. Sc. Part I and M. Com.(I & II) Students. Mrs. Shailaja

Girishankar, Head, Department of Microbiology, motivated the students to have focused,

target oriented studies.

Mrs. Manisha Damle, Head, Department of Accountancy, briefly discussed about the scope of

accountancy. This was followed by Mrs. Usha Iyer. She detailed the students about various

M. Com. Courses.

All M. Sc. And M. Com. Students were detailed by the Principal Dr. Vijay Joshi and Pro-Vost

Dr. Rajan Velukar. Dr. Joshi expressed his desire for taking college to autonomy. Sir also

discussed about MOOC. He also emphasized on the importance of research at post-graduate

level and how autonomy can help to inculcate research thirst in young minds. Pro-Vost Dr.

Rajan Velukar interacted with the students. He addressed them with a different perspective

of pursuing research.

Students from science and from commerce were present for the induction programme.

In the afternoon at 01:30, induction programme was conducted for newly appointed

teachers. Dr. Vijay Joshi gave an overview of history and culture of Somaiya Vidyavihar. All

the teachers gave their introduction. Dr. Velukar motivated the teachers to give best of them

in their respective department and also at the college level.

Dr. Vijay Joshi also shared few of his experiences as a teacher as well as an administrator with

new teachers. This will definitely encourage new members of the family.

No of Participants:

M. Sc. Part I-73

M. Sc. Part II-90

M. Com.(I & II) Students- 40

New teaching staff- 28

**Department of Commerce** 

Report

Department of Commerce have organized various activities for Commerce students in the academic year 2015-16. The aim of conducting the activities was to develop a team spirit and leadership qualities among the students.

On  $29^{\text{th}}$  July 2015, commerce students participated in Open Day programme organised by IQAC

Students made presentation , conducted games and performed skits for the visitors..which was enjoyed a lot by them...

Department of Commerce conducted fest -"Avsar"-Kuch Kar Dikhane ka." As on 11<sup>th</sup> December, 2015. Different events and competitions were conducted during the fest. Large numbers of students from aided and unaided sections were taken part in the following events:

- 1. Elocution
- 2. Debate
- 3. Nail art
- 4. Best out of west
- 5. Poster making
- 6. Balloon Painting
- 7. Treasure hunt
- 8. Management Games
- 9. Essay Competition
- 10. Food fest

Outstanding participation from 110 students was seen for this one day event. Food fest, Treasure hunt and Management games got overwhelming response.

# Short course – Sustainable Agriculturally-Based Bio-Industries By Prof. Larry Walker

Date: 13<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup> Jan, 2016 Time: 10:00 – 13:00 hrs

	Time: 10:00 – 13:00 hrs				
	<b>13<sup>th</sup> Jan 2016</b> – Agenda				
1	College Prayer	SYBSc BT students			
2	Welcome Address	by Dr K.Z. Marolia,			
		Co-ordinator (BT)			
	Guests Present	Shri. Sameer Somaiya			
		Pro-vost, Shri Rajan Welukar			
F		Principal Vijay Joshi			
3	Felicitation of the guest	by Shri. Sameer Somaiya			
4	Introduction of the Key-Note Speaker:	by Dr. Abhishek Chhaya Mane			

	Prof. Larry Walker			
5	Opening comment of the Short Course:	by Principal Vijay Joshi		
6	Presentation by Key-Note Speaker :			
	Topic 1: The Evolving Paradigm of Agriculture as a Provider of Energy and Chemicals			
Tea Break				
	Topic 2: What Does a Bio-refinery/Industrial Ecology Look Like?			
	Topic 3: Developing Innovative Microbial Conversion Systems			

	<b>14</b> <sup>th</sup> <b>Jan 2016 –</b> Agenda		
1	1 Presentation by Key-Note Speaker:		
	Topic 1: Bio-refinery/Industrial Ecology and Understanding and Developing Plant Cell-Wall Degrading Enzymes for Industrial Biotechnology		
	Tea Break		
	Topic 2: Enzyme kinetics and Microbial Process		

	<b>15</b> <sup>th</sup> <b>Jan 2016</b> – Agenda		
1	Presentation by Key-Note Speaker:		
	Topic 1: System Engineering Principles which provide the foundation for Sustainable Bio-based industry		
	Tea Break		
2	Topic 2: The Social Dimension of Sustainable Agriculturally-Based Bio-industries		
	VOTE OF THANKS		

The short three day course on "Sustainable Agriculturally-Based Bio-industries" was conducted by Dr. Larry Walker, Professor, Cornell University, Ithaca, New York. In this short course, the following topics were explored: The Evolving Paradigm of Agriculture as a provider of Energy and Chemicals, Enzyme kinetics and Enzyme Process, Microbial Process, System Engineering Principles which provide the foundation for Sustainable Bio-based industry, The Social Dimension of Sustainable Agriculturally-Based Bio-industries.

## Report Day 1: 13th Jan, 2016

#### THE EVOLVING PARADIGM OF AGRICULTURE AS A PROVIDER OF ENERGY AND CHEMICALS

Sustainability could be defined as an ability or capacity of something to be maintained or to sustain itself. It's about taking what we need to live now, without jeopardising the potential for people in the future to meet their needs. Human development is essentially what sustainability advocates want to sustain and without sustainability, human development is not true human development. Human development is about enabling people to lead long, healthy, educated and fulfilling lives, and then sustainable human development is about making sure that future generations can do the same.

Dr. Larry P. Walker, retired professor from Cornell University, in his three day workshop held in K.J. Somaiya College of science and Commerce, passionately spoke about how developing innovative microbial conversion systems could amount to agriculture as a source of energy and chemicals.

With increasing population of the world, there needs to be ways to meet the energy and material needs for a sustainable global community. Dr. Walker, on day 1 of the workshop, talked about basic energy sources i.e. oil, food, water, and essential gases. Historical prospective gives us information about some scientists and their work. Entry in the 20<sup>th</sup> century gave a Special Theory Of Relativity by Albert Einstein, beginning of hydrocarbon economy, beginning of auto age, mechanization of agriculture. In 21<sup>st</sup> century we have been facing War on terror, climate changes, and global economic competitiveness. However this century has also witnessed great works like human genome project, transgenesis in plants.

He also added that we in the 21<sup>st</sup> century are changing our paths from conventional non-renewable resources to renewable ones. With ever booming population, the existing fuel reserves will not be enough to suffice the needs of the people around the world. Hence we are becoming more inclined towards the bio based resources.

As Dr. Walker pointed out that biomass is the only renewable that directly reduce our dependency on liquid fuel. Dr. George Washington, the father of bio-based industry, his ideas and philosophies on bio-based industry is almost revolutionary. Biomass is the only renewable source that directly depends on liquid fuels.

Bio based economy, as Dr. Walker explained, is an economy where the basic building blocks for industry and the raw materials for energy are derived from plant/crop-based (i.e. renewable) sources and processed using industrial biotechnology. Bio based industries depend on raw materials derived from plant/ crop and their functional areas of products include bio-polymers, bio-fuel, marine biotechnology, agriculture commodity chemicals, water treatment, pulp and paper industries, pharmaceutical, fine chemicals, food ingredients. Bio based economy also has strategic importance of enzyme technology on Health and Environment, There is reduced waste streams from both industries and homes. Reduced effluent oxygen demand and improved worker safety. Importance of enzyme technology involves:

- Renewable, biomass feedstocks
- Fuel ethanol yield
- Plastic degradation and production
- Food ingredients
- Health care products
- Improved products like more efficient detergents, longer wearing fabrics, higher quality leather goods, more preservation alternatives for food, and shorter pathways to pharmaceutical intermediates.
- Improved industrial processes: giving higher yields of desired products and lesser byproducts, decreasing energy utilization, and cleaner waste streams.

Dr. Walker also talked about a global bio-economy giving examples of leading chemicals, fuels and commodities players are building green chemicals and plastics into their portfolios. The ecosystem of an industry is affected by key ingredients, viz., science, policies, market, feedstock technology, capital.

A combined effort of science and technology plays an important role in developing this century's bio-based industries, says Dr. Walker. Genomics, proteomics, protein engineering, molecular modelling, Nano-biotechnology, advanced bioreactors, advanced systems control, more sophisticated control systems, system biotechnology, are but few to name key factors in modern world bio based economy.

Innovation is the driving force of sustainability. Local dynamic values are the key factor of innovation. People living in a common area can bring in development of that locality better than people from a different society. This is because innovation is dependent on various factors like environment, culture values, and advancement of science in the area. For example, People living in Southern Africa will lead to different type of development with respect to the people living in Europe because of the wide difference between the cultures as well as education.

Innovation also happens for capital profit. These inventions are eventually done by Entities who look to make an impact on the market as well as to make a profit. These innovations are dependent on the Market, the investments and policies. Policies and Market in turn dependent on culture, local needs and the environment. Thus, innovation is more of a local event rather than a global event though innovations which are successful in the local market can be distributed to global markets as the same entity or a customized version.

Although, algae was initially used for biomass and biofuel production, but it was quickly replaced by yeast. Yeast (*Saccharomyces cerevisiae*) showed a 20% increase in the yield. We are seeking to increase ethanol tolerance by manipulating the phospholipid composition of the cellular membranes by inositol supplementation and genetic engineering to remodel the membrane of *Saccharomyces cerevisiae*. Cell wall enzyme discovery from virulent plant pathogens like *Fusarium graminearum*, *Cochliobus sativus*, *Fusarium oxysporum*, *Phylosticta maydis*, etc, has led us to integrate the knowledge and methods from basic and applied science for a mission in biofuels and industrial chemical systems. Thermophilic fermentation using *Thermotoga neapolitana*, a thermophile; which survives at a temperature range as high as 55 – 90°C has helped immensely in renewable energy production. Advantages of these gram negative rods being that its enzymes are robust and there is a lower contamination risk, in addition to the fact that it is also viable in high salt concentration.

Dr. Walker also gave an insight with the complexity faced for production of biofuels in a sustainable manner. In countries like USA, policy makers are aiming in achieving more sustainable development for future years. Complexity and diversity in structuring bioenergy systems, evolution in the technical, economic and environmental performance of different

material transformation, material transport and material storage technology and uncertainty over the over 'scalability' of bioenergy systems are few reasons why there is a disagreement.

The idea for innovation must be applicable at a global level while the process of innovation must be first implied at a local level. Moreover the sustainability in agriculture can not only help an individual in living an ideal life but will also be able to reduce poverty and improve the economy of the nation. Science, engineering and technology fail individually but help in an innovation because of its interdisciplinary fields. Sustainable agriculture can also be vital in bio refineries which can make use of all the materials, byproducts till full utilization. This can not only reduce pollution but can also help generation of variety of products from simple raw materials. Sustainable agriculture when related to innovation using science, technology and engineering in the field of bio refineries will increase the pace of development of the nation along with economic stability. Dr. Walker emphasized through his workshop provide information and implement ideas to be used to innovate, develop existing means as well as establish newer methods for sustainability in countries like India.

## Report Day 2: 14th Jan, 2016

<u>UNDERSTANDING AND DEVELOPING PLANT CELL-WALL DEGRADING ENZYMES FOR</u>
<u>INDUSTRIAL BIOTECHNOLOGY</u>

With the quick review of Day 1 and discussions from previous day's questions Prof. Larry emphasized Day 2 with respect to,

- 1. Bio-refinery / Industrial Ecology.
- 2. Understanding and Developing Plant Cell-Wall Degrading Enzymes for Industrial Biotechnology.

An in depth understanding of how a biorefinery should be functioning as a system which includes appropriate and fullest use of resources, ensuring least amount of waste generation and maximum yield was explained with exemplification of Godavari Biorefineries Ltd, Somaiya group.

In the summary, a biorefinery or an industrial ecology should include a step wise process where product of one process plant can be used as a feed for the next plant in series, thereby

ensuring that the company doesn't go broke at times of inflation and reduced demand in the market for a particular product. Godavari Biorefineries produces Sugar from Sugarcane and ethanol as a major product by fermentation of molasses (remnant after maximum sugar is crystallized). This ethanol is used as a feed for a plant producing acetaldehyde, which in turn can be shunted to produce acetic acid, or crotonaldehyde. The bagasse obtained is used for generation of electricity within the refinery and remnant is fermented anaerobically to produce Biogas. Thus if market demand of any of the product in line recedes, it can be shunted to produce other demandable products, there by stabilizing the economy and proper functioning of the industry. The industry should be setup very close to the farms that produce the raw materials. This not only reduces the cost but also the pollution caused by transport vehicles and thus the carbon footprint of the company. This will also save a lot of time and prevent feedstock contamination. Besides this, always innovative ideas should be materialized in a way that the moral perspective and welfare of the company and the society is ensured. This shouldn't essentially involve scraping off of old techniques or technology but can be a mixture of traditional customs and modern concepts which will ensure harmony between the locals and the company.

Since the company gains a lot from the producers of raw feedstock (farmers), the company owes a moral responsibility of providing knowledge, education and social etiquettes to the producers, their families and the workers of the company. For example, Godavari Biorefineries has educational institutes set up in the rural for providing quality education to the children of farmers and workers. It also carries out educational sessions for farmers to increase the yield and nurturing the nature rather than exploiting it by arbitrary use of fertilizers. The company should be liberal enough to gain useful knowledge from locals and incorporate it in their research ideas.

In the second session a greater emphasis on various alternatives for production of biofuel was put. Use of switch grass for ethanol production was explained emphasizing the use of non-digestible carbohydrates like cellulose, hemicellulose and lignin. The process involves pretreatment of cellulose in order to make it more utilizable by the fermenting yeast; which involves increasing the porosity of packed cellulose so that the organisms or the enzyme can access it more easily. The cellulolytic organisms are studied intensively and it is concluded that their enzymes can be used to hydrolyze cellulose into simpler sugars which can then be

fermented to produce ethanol. Other feed stocks that can be used are sorghum, corn, bagasse, hard wood, soft wood, Hybrid poplar and *Miscanthus* etc. There are various cellulolytic organisms which are used as a source for cellulases. Some of the organisms discussed were: *Shipworm bacterium*, *Cellullulomonas fimi*, *Clostridium thermocellum*, *Acetivibrio cellulolyticus*, *Trichoderma reesei*, *Thermobifida fusca* 

The other industrial applications of cellulases were also shown, followed by a short history of development and subsequent chronology of researches. Various analytical techniques (like x-ray crystallography, fluorescence microscopy, FRAP etc.) and their kinetic framework was talked about.

In conclusion, a holistic approach towards understanding research, industries, business, economy, environment and politics and their interrelation with one another was carried out.

#### Report Day 3: 15th Jan, 2016

#### THE SOCIAL DIMENSION OF SUSTAINABLE AGRICULTURALLY-BASED BIO-INDUSTRIES

On the third day, Dr. Larry Walker explored on the last topic i.e "The Social Dimension of Sustainable Agriculturally-Based Bio-industries." The discussion included two aspects:

- 1. The Social Dimension of Industrial development and
- 2. What is Ecology in Industrial Ecology?

After the discussion on second day regarding the scientific aspects of Bio-based industries, the third day was quite interesting as it elaborated on Social wants and needs of Industries and its Multidimensional impact on the society or environment. The Social wants and needs basically included: Food and Water, Shelter, Human interactions, Health care, Literature, Status symbol, National and International Security.

The discussion also focussed on "Purpose of Need Analysis" which highlighted various aspects that are needed: 1. National Security, 2. Improved environment, 3. Equality. Without all the above said needs it is difficult for an individual to sustain a life.

Later then the discussion moved on to the Industrial System which operate by taking into consideration, the society and the economy i.e Interaction between Industrial and societal

activities. This section included many key factors such as to modify our needs and wants for the healthy growth of Society and Industry. For this healthy growth "Five stages of Technological Transformation" was suggested which included:

- 1. Ignorance of unknown environment,
- 2. Lack of interest,
- 3. Reliance on technology,
- 4. Towards sustainability,
- 5. Absolute sustainability.

The importance of private firm for investment, New organizations, Full cost accounting, Communities were discussed in "The Corporate Role." Further Industrial ecology was given a huge importance stating that to use low technology wherever possible and also to remain reliant on technological evolution, and to take into consideration of Status Quo and The Global Clash.

To advocate the betterment of Industrial ecology Dr. Larry Walker shared the thought "Think globally Act locally." A new concept of complex adaptive system was mentioned which included various characteristics such as Heterogeneity, Non-linearity, Flow. Out of these Non-linearity was considered more important.

Finally, Dr. Larry Walker ended the session by explaining the Eight commandments of Environmental Management:

- 1. Reduce Uncertainty
- 2. Expect Surprise,
- 3. Maintain Heterogeneity,
- 4. Sustain Modularity,
- 5. Preserve redundancy,
- 6. Tighten Feedback loops,
- 7. Build Trust, and
- 8. Do unto others as you would have them do unto you.

#### 9. Biotechnology Abhyas Mahotsav

10. Date: 5<sup>th</sup> and 6<sup>th</sup> August, 2015

11. Time: 9:00 – 5:00 hrs

**12**.

#### 13. 5<sup>th</sup> August 2015

14. Agenda

1 College Prayer SYBSc BT students 2 Welcome Address by Dr K.Z.Marolia, Co-ordinator (BT) Felicitation of the guests before the lecture 3 4 Introduction of the Key-Note Speaker: by Manali Nikte **Dr. Prashant Phale (IITBombay)** TYBSc (BT) 5 Presentation by Key-Note Speaker: **Dr. Prashant Phale Glucose First or Aromatics First?** (IITBombay) 6 Introduction of the Key-Note Speaker: by Priyanka Bhawrani TYBSc Dr. Susan Eapen (BARC) (BT) 7 Presentation by Key-Note Speaker: Dr. Susan Eapen (BARC) Agricultural Biotechnology for food, feed and environmental security **Lunch Break** 8 Introduction of the Key-Note Speaker: Ms. Smera by Ms. Anjali Soni

SYBSc (BT)

by Ankita Pal

SYBSc (BT)

Ms. Smera Satish (Satgen)

Satish (Satgen)

**Cancer Screening** 

Lali (Director, ICT)

Presentation by Key-Note Speaker:

Introduction of the Key-Note Speaker: Dr. Arvind

9

10

11 Presentation by Key-Note Speaker: **Bioenergy** 

1

2

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College Prayer

Screening

Introduction of the Key-Note Speaker:

Mr. Soumen Roy (Haffkin Research Institute)

Demonstration by Key-Note Speaker: Live

Demonstration of in-ovo virus cultivation

Introduction of the Key-Note Speaker: Ms. Shraddha Mehta (Haffkin Research Institute) Dr. Arvind Lali (Director, ICT)

by Mr.Saptesh Morankar

Mr. Soumen Roy (Haffkin

Research Institute)

by Ms. Urvi Rawal

FYBSc (BT)

SYBSc (BT)

## Date: 5th and 6th August, 2015 Time: 9:00 - 5:00 hrs 6th August 2015 Agenda SYBSc BT students Introduction of the Key-Note Speaker: by Shreemay Modi Dr. Anil B. Jalan (Nirman Labs) FYBSc (BT) Presentation by Key-Note Speaker Dr. Anil B. Jalan (Nirman Inborn Errors of Metabolism and Newborn Labs) Break Introduction of the Key-Note Speaker: by Ms. Varshita Mehta Dr. Sangeeta Shrivastav (Genesis Labs) FYBSc (BT) Demonstration by Key-Note Speaker: Dr. Sangeeta Shrivastav Godavari Bio-refineries Ltd. **Lunch Break**

**Biotechnology Abhyas Mahotsav** 

9	Presentation by Key-Note Speaker: Viruses & You	Ms. Shraddha Mehta (Haffkin Research Institute)
	Vote of thanks	

#### **Brief Summary**

An annual event of experiential learning has become a tradition in our department and this year too the "Abhyas Mahotsav" was enjoyed by all students. Our honourable Principal Dr. Joshi was a source of encouragement. The event was scheduled in a two-day programme held on 5<sup>th</sup> and 6<sup>th</sup> of August, 2015. The event was inaugurated by a welcome speech by Dr K.Z.Marolia, Co-ordinator (BT). The event included lectures by eminent scientists and researchers from various organizations with great scientific backgrounds. Each session started with brief introduction about the speaker and their research interest and concluded by interactive session and felicitation of the guest speakers. On the first day of the event, Dr. Prashant Phale (IITBombay) delivered a lecture on "Glucose First or Aromatics First?" and enlightened the young minds about the complex mechanism behind utilization of glucose as a source of energy which he studied by genetic engineering in model *Pseudomonas sp.* His lecture was followed by lecture by Dr. Susan Eapen (BARC), who delivered a lecture on the importance of agricultural biotechnology for environment. In the afternoon session Ms. Smera Satish (Satgen), talked on high-throughput cancer screening assays which they have utilized for screening anti-cancer activity from plants extracts. Day 1 was concluded with a talk by Dr. Arvind Lali (Director, ICT) on urgent need of Bioenergy and its implication on environment. Day 2 morning session began with a lecture by Dr. Anil B. Jalan (Nirman Labs) on several techniques to screen inborn metabolic disorders. Following lecture was delivered by Dr. Sangeeta Shrivastav (Genesis Labs) who spoke on generation of compounds from sugarcane waste and introduced the new idea of bio-refineries. The final session of the event included a live demonstration by Mr. Soumen Roy (Haffkine Research Institute) who showed the handling of live avian embryos, their maintenance and finally culturing of avian viruses for pharmaceutical application. The closing lecture was delivered by Ms. Shraddha Mehta (Haffkine Research Institute) who delivered a talk on immuno-virology and the underlying basis of immunological response in host after viral attack. The event was closed with a vote of thanks delivered by Dr K.Z.Marolia, Co-ordinator (BT) who acknowledged the efforts, support and active participation by the Principal, Management, students, faculties and nonteaching staff to make this event a success.

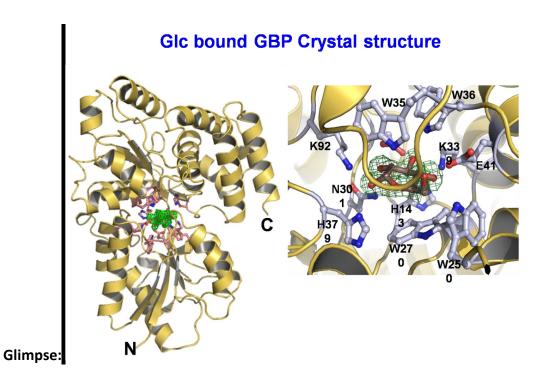
Prof. Prashant Phale has completed is doctoral degree from India's one of the most prestigious Organization, Indian Institute of Science. He carried out his Post Doctoral research at Harvard Medical School, Boston and University of Bazel, Switzerland. Currently he is working as Scientist/Professor at the IIT,Bombay. His academic interest are elucidation of metabolic pathways for degradation of aromatic compounds, Purification and characterization of oxygenases, Preferential utilization of aromatics compounds by Pseudomonas, Metabolic engineering of aromatic degradation pathways. He is guiding more than 10 Ph.D students and published several articles in peer reviewed international journals.

#### **About the Seminar:**

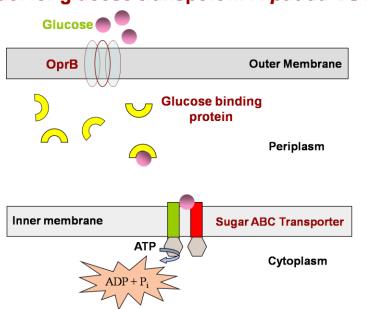
In his seminar he gave brief introduction of Glucose metabolism and transport machinery in organisms. He also presented some of his research work on Glucose transport machinery of *Pseudomonas sp.* (CVS 36). His concluded his presentation with an open debate about "Industrial biotechnology as a future of Science" which inspired many students. During his 15mins interactive session he addressed several queries from students and faculties.

Key Note Speaker

**Prof. Prashant Phale** 



## Model for glucose transport in P. putida CSV86



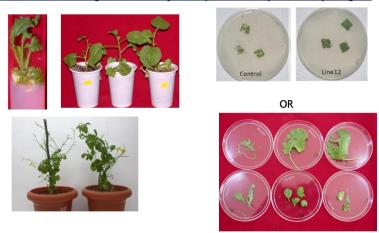
Prof. Susan Eapen is currently a member of the Board of Trustees of the Indian Women Scientists' Association (IWSA), an NGO in operation since 1973 with headquarters at Vashi and 10 branches all over India. She is a member of "The National Academy of Sciences" as well as "Maharashtra Academy of Sciences". She retired in October 2011 as Head, Plant Biotechnology and Secondary Products Section of Bhabha Atomic Research Centre and Professor, Homi Bhabha National Institute. She has published about 140 papers in National and International journals, has contributed several chapters in books, has presented several papers in National and International symposium and has trained several international scientists in the field of plant biotechnology. She was also involved in the "Cotton Mini Mission" project of Government of India and is a collaborator for several BRNS funded programs all over India. During one such collaborative project with Tamil Nadu Agricultural University her team has come out with a high yielding salt tolerant rice variety. Incidentally, she has developed the first genetically modified pulse crop way back in 1986. Prof. Susan Eapen is the Associate Editor of international journals "In-Vitro Plant" and "BMC Biotechnology" being published from USA and United Kingdom respectively.

#### **About the Seminar:**

She delivered lecture on "Agriculture biotechnology: for food, feed and environmental security". In her presentation she demonstrated successful transfer desired genetic material from human, fungal or bacterial source into the plants using genetic engineering tool(agrobacterium). Many of these transgenic plants showed overwhelming response during their kinetic study. She presented the data of several case studies from her lab. One such fascinating case study involves the generation of transgenic plant by introducing the human cytochrome p450 gene in tobacco plant for the uptake and degradation of toxic compound lindane. She concluded her presentation with special note on how biotechnologist and botanist together can change the world and create the revolution. Her lecture inspired students for opting agricultural biotechnology as promising career ahead.

#### Glimpse:

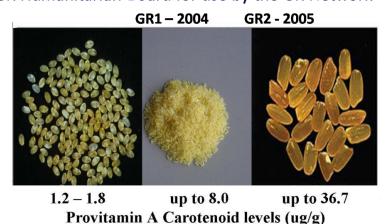
Insect resistant transgenic Brassica juncea plants with synthetic cry1Ac gene



Insect Bioassay with Plutella xylostella

## Nutritionally Enhanced

New GR1 and GR2 were developed by Syngenta as part of their commercial pipe-line and have now been donated to the GR Humanitarian Board for use by the GR Network



#### Speaker

#### **About the Speaker:**

Ms. Smeera Satish has completed her Post Graduation from K. J. Somaiyya College of Science and Commerce. Further she joined Dept. of Medicinal Chemistry, in Sathgen Biotech (A unit of Godavari Biorefineries Ltd.), as a trainee and later appointed as the R & D Officer. During her tenure she assisted in the development of novel Cell-based Assay to screen efficacy of anti-cancer extract from plants. Her research is published in the International Journal of Current Pharmaceutical Research.

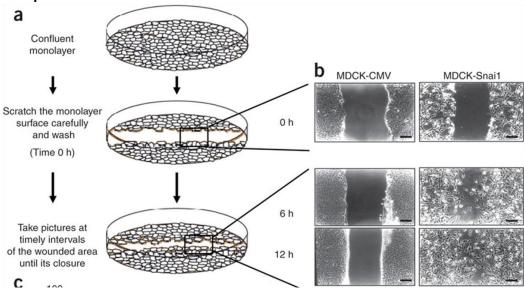
#### **About the Seminar:**

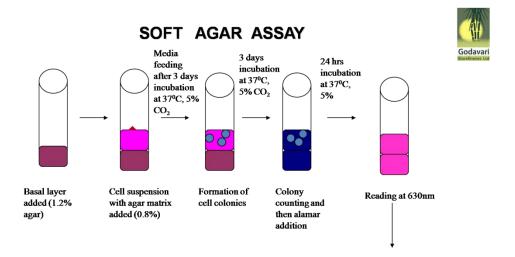
In her presentation she gave brief introduction of modern day tools for high throughput *in vitro* cell based anticancer drug screening methods. Her research has demonstrated the evolution of time-consuming to high-throughput smart biological tools for Cell-based Assays. During her interactive session she addressed many technical issues for animal tissue culturing and maintenance.

### **Key Note** Speaker

#### Ms. Smeera Satish

#### Glimpse:









Prof. Arvind Lali, is one of the leading Industrial Biotechnologist in India. He has pursued his Doctoral degree from UDCT, University of Bombay and currently heading DBT-ICT Centre for Energy Biosciences. He has published several research articles and reviews, authored book chapters and holds many patents in the field of Bio-energy and Environmental Science. He was Adjunct professor of bioprocessing, Michigan state university in the year 2000. He also worked as visiting scientist, university of Lund, Sweden, 1996-1997 and DBT overseas associate, University of Lund, Sweden, 1992-94. His research interest Bioenergy, Biofuels and biomass, Bioenergy, Biofuels and biomass to other bio/chemicals, Purification of proteins, nucleic acids, other biomolecules, natural & synthetic APIs, high value organic/inorganic chemicals, Continuous chromatography, Modeling and Adsorptive Separations, Biocatalysis and Biotransformations, Bioreactor design, Mixing and dynamics of solid-liquid fluidized beds, Dynamics of gas-solid circulating fluidized bed, Process integration and intensification, Process development, characterization and scale-up. He was also honoured with several prestigious awards IIChE Sartorius India Chemcon Distinguished Speaker, 2008, Fellow, Maharashtra Academy of Sciences, 2007, IIChE NOCIL award for excellence in design or development of process plant or equipment, 2006.

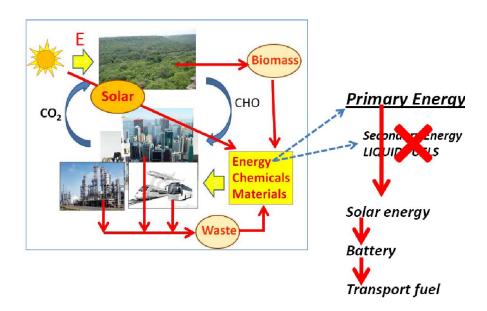
#### **About the Seminar:**

During his presentation he showed glimpse of his research in Bio-energy and Industrial Biotechnology. He gave a brief overview on the process of efficient production of biofuel from biomass. As a mechanical engineer he also explained the designing strategy of bioreactors based on type of raw materials, scale-up and recovery process. During interactive session, he addressed many queries related to the urgent need of renewable energy sources as an alternative.

Key Note Speaker **Prof. Arvind Lali** 

#### Glimpse:

## Sustainable Carbon Balance - Complete Recycle



## Opportunity and Potential



Key Note Speaker Dr. Anil B Jalan (MD Paed. DCH MCPS)

Dr. Anil B Jalan, MD (Paed) DCH MCPS is working as chief scientific research officer at NIRMAN (Navi Mumbai Inst. Of Research In Mental And Neurological Handicap). He has trained in Metabolic Medicine at ten different European Centers and Universities. He published more than 60 research publications and authored book chapters in several medical books.

#### **About the Seminar:**

In his presentation he gave an insight on the importance of metabolic processes and the result of deviation from normal functioning in newborns. He highlighted several metabolic disorders in newborns and the urgent need of screening such disorders at early stage. In his talk he showed the several efficient methods of screening these metabolic disorders in newborns. During the interactive session he answered several subjects from students and faculties as well.

## Glimpse:



Newborn Screening – S&S 903



Key Note Speaker Dr. Sangeeta Srivastava

Dr. Sangeeta Srivastava, pursued her doctoral degree from Mumbai university in organic chemistry. Her research interests are sucrose and ethanol chemistry, sugar cane based bio-refinery, more specifically converting by-products into valuable chemicals such as molasses to bioplastics and bagasse to cellulose polymer, immobilisation of enzymes and its application in sucrose industry and organic synthesis. She has published many research articles and patents in the area of medicinal chemistry and carbohydrate chemistry. Currently she is working as general manager Corporate Research and Development Godavari Biorefineries Ltd (The Godavari Sugar Mills Limited). She was the member of Advisory & Monitoring Committee (AMC) for the project setting up of 'centre for biofuels" for Bio-fuel committee of govt. of India .

#### **About the Seminar:**

In her presentation "Value added chemicals from Sugarcane-Bio refining concept" she highlighted on the importance of products generated from green bio-refinery and their implications on environment. She emphasized on use of waste materials from sugarcane industries as a renewable energy resource for large-scale production of bio-ethanol, bio-diesel and bio-hydrogen. These bio-fuels can be alternative existing natural gas derived hydrocarbons. During the interactive session she mentioned social awareness of energy consumption and the bio-energy as the need of future generation. She also showed interest for the collaborative projects and internship for the students.

Glimpse:





Key Note Speaker

Mr. Soumen Roy

Mr. Soumen Roy is currently working at Haffkine Institute, Mumbai in Department of Virology. He has authored many articles on epidemiology on viral diseases and their transmission in international journals.

#### **About the Seminar:**

In his live demonstration, he explained the isolation and cultivation techniques of avian and mammalian viruses *in ovo*. In his live demonstration, he showed the primary stages of the embryo and the inoculation of foreign material (virus) in the embryonic stage. His oral and practical presentation helped students in gaining insight of avian embryonic development. During his interactive session he addressed the queries of handling live embryos and their maintenance.

Key Note Speaker **Prof. Soumen Roy** 

## Glimpse:



Candling of embryonating egg - Candling box with an egg placed on egg shaped whole and mode of candling.





Ms. Shraddha Mehta is working as Senior Research Fellow at Haffkine Institute for Training, Research & Testing, Mumbai. She is pursuing her doctoral degree in medical microbiology on topic "Study of Neuronal Proteome in Prognosis of Rabies in Murine model"; under the guidance of Dr. Abhay Chowdhary. She has authored many publications in the pharmaceutical research area.

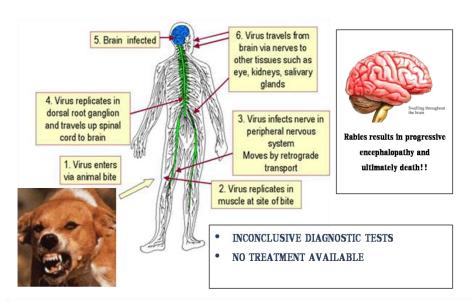
#### **About the Seminar:**

In her presentation she explained the underlying mechanism of immune response towards viral attack. Her presentation mostly contained parts of her research on viral immunology that gave an insight on the pharmaceutical aspect of drug designing. During the interaction session she addressed questions on the interplay of host immune surveillance and viral load.

#### Glimpse:

#### **RABIES**

Rabies is responsible for more than 20,000 human deaths per year in India alone.







## Characterization of the Non-Polio Enterovirus Infections Associated with Acute Flaccid Paralysis in South-Western India

Rongala Laxmivandana<sup>1</sup>, Prasanna Yergolkar<sup>2</sup>, Varanasi Gopalkrishna<sup>1</sup>, Shobha D. Chitambar<sup>1</sup>\*

1 Enteric Viruses Group, National Institute of Virology, Pune, India, 2 National Institute of Virology, Bangalore-unit, Bangalore, India

#### Abstract

Non-polio enteroviruses (NPEVs) have been reported frequently in association with acute flaccid paralysis (AFP) cases during Polio Surveillance Programs (PSPs) worldwide. However, there is limited understanding on the attributes of their infections. This study reports characteristics of NPEVs isolated from AFP cases, investigated during PSPs held in 2009–2010, in Karnataka and Kerala states of south-western India having varied climatic conditions. NPEV cell culture isolates derived from stool specimens that were collected from 422 of 2186 AFP cases (<1–14 years age) and 17 of 41 asymptomatic contacts; and details of all AFP cases/contacts were obtained from National Polio Laboratory, Bangalore. The distribution of NPEV infections among AFP cases and circulation pattern of NPEV strains were determined by statistical analysis of the data. Genotyping of all NPEV isolates was carried out by partial VP1 gene sequencing and phylogenetic analysis. NPEV positive AFP cases were significantly higher in children aged <2 years; with residual paralysis; in summer months; and in regions with relatively hot climate. Genotyping of NPEVs identified predominance of human enteroviruses (HEV-B species (81.9%—Echoviruses (E): 57.3%; coxsackieviruses (CV) B: 15%; numbered EVs: 8.9%; CVA9: 0.7%] and low levels of HEV-A [14.5%—CVA: 6%; numbered EVs: 8.5%] and HEV-C [3.6%—CVA: 2.6%; numbered EVs: 196] species, encompassing 63 genotypes. EV76 (6.3%) and each of E3, CVB3 and E9 (4.97%) were found frequently during 2009 while E11 (6.7%), CVB1 (6.1%), E7 (5.1%) and E20 (5.1%) were detected commonly in 2010. A marked proportion of AFP cases from children aged <2 years; presenting with fever; and from north and south interior parts of Karnataka state was detected with E/numbered EVs than that found with CVA/CVB. This study highlights the extensive genetic diversity and diverse circulation patterns of NPEV strains in AFP cases from different populations and climatic conditions.

#### **Parent Teacher Meeting Report**

Department of Biotechnology organized a Parent Teacher meeting on 26<sup>th</sup> (SYBSc) & 27<sup>th</sup> June (TYBSc),15 following the success of a preceding Parent Teacher meeting held on 3<sup>rd</sup> July 14 &5<sup>th</sup> January 2013. The main objective was to interact with the parents of S.Y.BSc & T.Y.BSc students about their wards academic profile and class participation.

Timings for Parent Teacher meeting was from 9.50 a.m to 1.10 p.m to accommodate the convenience of working parents. A Powerpoint presentation involving slides on S.Y.B.Sc (16 parents attended)college timings, departmental activities, continuous evaluation and attendance rules was prepared and put for auto display. Dr. K.Z Marolia, coordinator of biotechnology department and other staff members met parents who came before the allotted time and diligently counseled their wards. The remaining students submitted the letter requesting their parents to be exempted from attending the meeting on the ground of genuine reason since some parents lived outstation. However exceptional cases which required urgent counseling were informed to call their parents and meet H.O.D as per mutually convenient timings.

Students discussed their goal sheets with the staff and parents to which both students and parents found the counseling interactive and motivating. Some potential students were encouraged to take up Honor's program while others were asked to improve their study pattern, attendance record and English speaking ability for students coming from vernacular medium were addressed and solutions to help student progress suggested.

Parent Teacher meeting was completed with feedback from the parents via the feedback form of the college. The stress that students feel about lack of staff has been felt and students are unhappy that some portions are completed in a rushed manner due to this. Students would also like a good canteen that they can use, and requested for a common room. The full support and guidance of the teaching staff of the Biotechnology staff could help motivated students achieve their dreams.

Title of event Parent Teachers Meeting- TYBSc

Date: 27<sup>th</sup> June 2015 Saturday Venue: Biotechnology Laboratory

Time: 9:30 to 2:00

Resource Person: All Biotechnology staff

Organized by: Attendance Committee & Biotechnology Department

Invited audience: All parents and students of TYBSc Audience strength 13 parents with their wards

Number of students:

Number of staff: 3

**Parent Teacher Meeting Report** 

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Timings for Parent Teacher meeting was from 9.50 a.m to 1.10 p.m to accommodate the convenience of working parents. A Powerpoint presentation involving slides on T.Y.B.Sc (13 parents attended) college timings, departmental activities, continuous evaluation and attendence rules was prepared and put for auto display. Dr. K.Z Marolia, Coordinator of biotechnology department and other staff members met parents who came before the alloted time and diligently counselled their wards. The remaining students submitted the letter requesting their parents to be exempted from attending the meeting on the ground of genuine reason since some parents lived outstation. However exceptional cases which required urgent counselling were informed to call their parents and meet H.O.D as per mutually convenient timings.

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## K. J. Somaiya College of Science & Commerce

Vidyavihar, Mumbai – 400077

Re-Accredited "A" Grade by NACC

Academic	-	No of	No of students present		
year		parents present	FYBSc	SYBSc	TYBSc
2010-11	-	-	-	-	-
2011-12	10/01/2012	4	-	-	4
2012-13	05/01/2013	19 & 5	21	-	10
2013-14	-	-	-	-	-
2014-15	03/07/2014	19	-	13	16
2015-16	26/06/2015	16	<del>-</del>	27	
2015-10	27/06/2015	13	-		18

Biotechnology Department was involved in communicating with the parents /guardians, the decrease in attendance and scores of the students; *via* informal meetings and also letters were sent at the mailing address in the year 2010-11, 2011-12 and 2012-13. TYBSc students were given special attention regarding their class conduct and attendance, since TYBSc is regarded as crucial year. In the year 2011-12, four TYBSc students were instructed to call their parents to meet with the Dr. K.Z. Marolia, Coordinator of Department of Biotechnology on or before **10**<sup>th</sup> **Jan 2012**. These parents were called due to the student's misconduct and irregularity in the classes. In this meeting, **4** parents had communicated with Dr. K.Z. Marolia and it was recognized that a personal interaction with the parent could improve the students' academic profile and class participation.

In the academic year 2012-13, the semester system was initiated and in the first semester many of the FYBSc students had failed and a Parent Teacher meeting was held on 5<sup>th</sup> Jan, 2013 (for FYBSc & TYBSc). The response was very positive. With the response in mind, the department of Biotechnology decided to hold more regular meetings with the parents. After the good response from the first meeting, a second meeting was held on 3<sup>rd</sup> July, 2014 and later a third meeting was held on 26<sup>th</sup> Jun (SYBSc) and 27<sup>th</sup> June, 2015 (TYBSc). Students who were defaulters were called and counselled during these periods to ensure that the students

do not lag behind and reach a point when they would find the credit system too difficult to clear. Students were informally counselled and made aware that the teachers are always contactable and could be approached at all times. The department felt that the student could seek their own mentor and therefore the assigning of a single teacher to all group of students was not practiced.

The timings were extended to accommodate the convenience of working parents. PowerPoint presentations involving slides on college timings, departmental activities, continuous evaluation and attendance rules was prepared and put on auto display. Dr K.Z. Marolia, coordinator of the biotechnology department and other staff members met parents and diligently counselled their wards.

The details of the meetings are given subsequently. For the years, 2010-11 and 2013-14 there was no formal parent teacher meeting conducted; the details of Parent Teacher Meeting for year 2011-12, 2012-13, 2014-15 and 2015-16 is given

#### 1. Parent Teacher Meeting (2011-12)

Title of event Parent Teachers Meeting – TYBSc

Date: 10<sup>th</sup> Jan 2012 (on or before)

Venue: Biotechnology Laboratory

Resource Person: Dr. K.Z. Marolia

Organized by: Attendance Committee & Biotechnology Department

Invited audience: 4 parents and students of TYBSc

In 2011-12, the first meeting was specially convened for the students with poor attendance or weak performance, to communicate with their parents and discuss if there were any difficulties that the department did not know about. The parents of the 4 students were asked to communicate with the Dr. K.Z. Marolia on or before **10 Jan 2012**. In the interaction with the wards, it was clearly indicated to them about the poor attendance record of these students. The parents were also encouraged to give feedback and suggestions to the department. The importance of student's seriousness towards TYBSc was communicated to their parents. The pattern of studies, attendance record and English speaking abilities (for students from vernacular mediums) were discussed, and counselling was given so as to have

an overall improvement of the students' career. Parent Teacher meeting was able to motivate each student. The full support and guidance of the teaching staff of the Biotechnology staff could help motivated students achieve their dreams.

#### 2. Parent Teacher Meeting (2012-13)

Title of event Parent Teachers Meeting – TYBSc & FYBSc

Date: 5<sup>th</sup> Jan 2013, Saturday

Venue: Biotechnology Laboratory

Time: 9:00 am to 2:00 pm

Resource Person: All Biotechnology staff

Organized by: Attendance Committee & Biotechnology Department

Invited audience: All parents and students of TYBSc & FYBSc

Audience strength

Parents with their wards (TYBSc & 19 FYBSc)

Number of students:

Number of staff: 5

Semester pattern had been introduced for the first time in the academic year 2012-13. The changes of the grading system and semester pattern had to be clarified to the students. Few students could not clear the first semester examinations due to this lack of clarity or the changes in the semester pattern. Keeping this Department organized a Parent Teacher meeting on 5<sup>th</sup> January 2013. Timings for Parent Teacher meeting was from 9.00 am to 2.00 pm to accommodate the convenience of working parents. Two TYBSc students gave a letter from parents for not attending the lecture and **one TYBSc student's parent had a telephonic conversation with Dr. K.Z. Marolia.** Emphasis was laid onto communicating with the parents regarding college timings, departmental activities and attendance. The meeting was convened especially for the attendance defaulters for whom the parents had to attend principally. Dr. K.Z. Marolia, Co-ordinator of Biotechnology Department and other staff members met parents who came before the allotted time and diligently counselled their wards. Nineteen FYBSc brought their parents to meeting whereas remaining students submitted the letter requesting their parents to be exempted from attending the meeting on the ground of genuine reason since some parents lived outstation.

From the positive feedback of the meeting, a gold sheet was prepared and students were asked to present themselves with the gold sheet in the second Parent Teacher meeting. The students discussed their goal sheets with the staff and parents in the second and third meeting.

The participation of the ward in the class and their attendance pattern was clearly communicated to the parents. They were duly informed about all the activities in which students are involved with the department. Some potential students were encouraged, while others were asked to improve their study pattern, attendance record and English speaking ability. Few weak students were allotted to some faculty to keep a tab on their academic performance and accordingly mentor them.

In the year 2012-13 a meeting with the students after their prelim exams identified students who we felt with a bit of presentation techniques in the answer paper would benefit. Guidance was given to these students and we feel that subsequently these students were more confident of the papers they wrote. They scored better and understood the areas they needed to work on.

Suggestions and feedback was encouraged from the parents and the wards. There was a positive response from everyone who attended the Parent-Teacher meeting; which gave the department assurance that the Parent Teacher meeting is a good method of communication with the parents and the wards.

# 3. Parent Teacher Meeting (2014-15)

Title of event Parent Teachers Meeting – TYBSc & SYBSc

Date: 3<sup>rd</sup> July 2014

Venue: Biotechnology Laboratory

Time: 9:50am to 1:10pm

Resource Person: All Biotechnology staff

Organized by: Attendance Committee & Biotechnology Department

Invited audience: All parents and students of TYBSc & SYBSc

Audience strength

Parents with their wards (9 TYBSc & 10 SYBSc)

Number of students:

Number of staff: 5

Biotechnology Department organized a Parent Teacher meeting on 3<sup>rd</sup> July 2014 following the success of a preceding Parent Teacher meeting held on 5<sup>th</sup> January 2013. The main objective was to interact with the parents of SYBSc & TYBSc students about their wards' academic profile and class participation.

Timings for Parent Teacher meeting was from 9.50 am to 1.10 pm to accommodate the convenience of working parents. A PowerPoint presentation involving slides on SYBSc and TYBSc college timings, departmental activities, continuous evaluation and attendance rules was prepared and put for auto display. Dr. K.Z. Marolia, Co-ordinator of Biotechnology Department and other staff members met parents who came before the allotted time and diligently counselled their wards. Nine TYBSc and 10 SYBSc brought their parents to meeting whereas remaining students submitted the letter requesting their parents to be exempted from attending the meeting on the ground of genuine reason since some parents lived outstation. However exceptional cases which required urgent counselling were informed to call their parents and meet H.O.D as per mutually convenient timings.

Both students and parents found the counselling interactive and motivating. Some potential students were encouraged to take up Honour's programme while others were asked to improve their study pattern, attendance record and English speaking ability for students coming from vernacular medium were addressed and solutions to help student progress

suggested. Few especially weak students were allotted to some faculty to keep a tab on their academic performance and accordingly mentor them.

It was helpful for both wards and faculty as some guardians or relatives of the ward belonged to professions related to our field and they offered to assist in the growth of the department. There is one ambitious student who in addition to her academic activity is taking training in paramedics.

Parent Teacher meeting was able to motivate each student to tap their potential and get them to realize their untapped strengths to excel. The full support and guidance of the teaching staff of the Biotechnology staff could help motivated students achieve their dreams.

#### 4. Parent Teacher Meeting 2015-16

A.) Parent Teachers Meeting-SYBSc

Title of event

B.) Parent Teachers Meeting- TYBSc

**A.)** 26<sup>th</sup> June 2015, Friday

Date:

B.) 27<sup>th</sup> June 2015, Saturday

Venue: Biotechnology Laboratory

A.) 12:30 to 5:00

Time: B.) 9:30 to 2:00

Resource Person: All Biotechnology staff

Organized by: Attendance Committee & Biotechnology Department

Invited audience: All parents and students of SYBSc & TYBSc

Audience strength A.) 16 SYBSc

Number of students: B.) 13 TYBSc

Number of staff: 5

The timings were extended to accommodate the convenience of working parents. A PowerPoint presentation involving slides on SYBSc & TYBSc college timings, departmental activities and continuous evaluation and attendance rules was prepared and put on auto display. Dr K.Z. Marolia, coordinator of the biotechnology department and other staff members met parents who came before the allotted time and diligently counselled their wards.

Students discussed their goal sheets with the staff and parents. The parents filled up the parent's feedback provided last year by the college. The feedback was encouraging towards the Parent Teacher meet. Students and parents both found the counseling interactive and motivating. Some potential students were encouraged to take up projects and Honours' program while others were asked to improve their pattern of studies, attendance record and English speaking ability for students coming from vernacular medium were addressed and solutions to help student progress suggested. Few exceptionally week students were allotted to some faculty to keep a tab on their academic performance and accordingly mentor them.

Questions about the advantages of the industrial visit to be held at the end of the month were shared with parents.

#### **BIOZONE** activity

The Department of Biotechnology, K J Somaiya College of Science & Commerce, Vidyavihar, started the 'BIOZONE' activity in 2009-10 as an initiative towards inculcating and reviving the thirst for Biotechnology in the students. Since then the department has been carrying this out on a yearly basis. The activity involves a series of presentations by S.Y.B.Sc. and T.Y.B.Sc. students on related biological topics. The topics are selected such that they cover the various branches of biotechnology keeping a balance between basic biotechnological processes and inventions and their applications. This event is organised by the teachers and is judged by the M.Sc. and T.Y.B.Sc. students.

It has been noticed that this activity has encouraged many a student to realise their presentation skills and boosted their morale. It has been instrumental in garnering their interest in biotechnology as evident from their enthusiastic and zealous participation. This interest has been found to have been carried forward to their academic performance especially in the case of average students.

The year-wise topics of the presentations and the winners are as follows:

Year	Topic		CV D Co. Lorenza	TVDC: '
	S.Y.B.Sc.	T.Y.B.Sc.	S.Y.B.Sc. winners	T.Y.B.Sc. winners
2009- 10	Nobel Laureates			
2010- 11	Microorganisms	Fermentation products and processes	1 <sup>st</sup> -Kalpesh Dalvi 2 <sup>nd</sup> - Bonita Rodrigo 3 <sup>rd</sup> - Prathamesh Shirsekar	1 <sup>st</sup> - Shruti Kane 2 <sup>nd</sup> - Savita Tripathi 3 <sup>rd</sup> - Zainab Pothiawala
2011- 12	Diseases and disorders	Biotechnology related industries	1 <sup>st</sup> - Zeeshan Shaikh 2 <sup>nd</sup> - Priyanka Patel 3 <sup>rd</sup> - Akash Sheth & Janhavi Shah	1 <sup>st</sup> - Sonam Singh 2 <sup>nd</sup> - Surabhi Pandit & Nikita Jain 3 <sup>rd</sup> - Mayur Ghate
2012- 13	Nobel Laureates (Life sciences)	Research institutes (Life sciences)	1 <sup>st</sup> - Christy Joseph 2 <sup>nd</sup> - Shreya Vichare 3 <sup>rd</sup> - Smruti Gaddamvar	1 <sup>st</sup> - Durmi Shah 2 <sup>nd</sup> - Ankita Abhnave 3 <sup>rd</sup> - Ronak Chheda
2013- 14	Organs of human body	Hormones and cells, organs of immune system	1 <sup>st</sup> - Shraddha Bhalani 2 <sup>nd</sup> - Vidhi Patel 3 <sup>rd</sup> - Hiren Dandia	1 <sup>st</sup> - Shreya Vichare & Shraddha Shah 2 <sup>nd</sup> - Shreya Suvarna & Mansi Girkar 3 <sup>rd</sup> - Sneha Mandalia
2014- 15	Enzymes	Biomolecules	1 <sup>st</sup> - Priyanka Bhavrani & Khushali Patel 2 <sup>nd</sup> - Jigyasa Misra 3 <sup>rd</sup> - Medha Mahamuni	1 <sup>st</sup> - Aditi Shah 2 <sup>nd</sup> - Hiren Dandia 3 <sup>rd</sup> - Vidhi Patel
2015- 16	Microbes	Applications of Biotechnology	1 <sup>st</sup> - Shruti Poojary 2 <sup>nd</sup> - Anjali Soni 3 <sup>rd</sup> - Anita Yadav	1 <sup>st</sup> - Khushali Patel 2 <sup>nd</sup> - Jigyasa Misra 3 <sup>rd</sup> - Monica Mohite

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#### The Most Enriching Destination of Industrial Visit – GUJARAT

In order to understand about the practical applications of Biotechnology, we planned an industrial visit for a period of 6 days in the month of July. After enough research and as per the suggestion of our H.O.D. we all agreed to visit Gujarat as our destination for IV. Arranging and managing the entire trip was not an easy task and with lots of hard work, consultations and never ending support of the department, throughout May and June, we completed our task and were looking forward to enjoy the trip. The industrial visit was organized by SMILE TIME HOLIDAYS between 27<sup>th</sup> of July to 1<sup>st</sup> of August. Total of 24 students (9 girls and 2 boys from T.Y.B.Sc and 8 girls and 5 boys from S.Y.B.Sc) accompanied by two faculty members namely H.O.D Dr.K.Z.Marolia and Prof.Mr.Jayesh Bhagat. Idustrial visit included Anil Bioplus, Institute of Human Genetics, Agriland Biotech, Gujarat Eco Microbial Tech., CETP, Concord Biotech and MSU. Sightseeing included Sabarmati Ashram, Kankaria Lake, Akshardham Temple and Sur Sagar Lake

The journey of our visit commenced on 27<sup>th</sup> July 2015. All the students assembled at Bandra terminus in order to board the Lokshakti Express scheduled to depart at 19:40hrs. It was an overnight journey filled with lots of fun as we kept the mood alive by singing songs and paying games.

We reached Ahmedabad on the next day at 6:30hrs. A pre-booked bus which was meant for our local travelling in Ahmedabad dropped us at hotel Neelkanth Panchikura. Once we checked into our respective rooms we freshened up and reached for the breakfast at 9:00hrs in the dining hall. Post breakfast we boarded our bus and headed towards our first agenda on the list i.e visit to FRIGE-Foundation for Reseach in Genetics and Endocrinology. This Institute deals with molecular genetics and biochemical genetics. We were introduced to various techniques relevant to this field like Real time PCR, Array CGH, FISH technology etc. We were scheduled to visit Concord Biotech after FRIGE institute but unfortunately due to unfavourable climate it was cancelled so we returned to our hotel for lunch at 13:00hrs after which we took a small leisure break. Early in the evening we visited the eminent Sabarmati Ashram and learnt about the lifestyle and events in Mahatma Gandhiji's life. We spent the rest of our evening in the pleasant atmosphere of Akshardham Temple. We had to return to our hotel due to heavy rains. Dinner was organized at the hotel itself.

On the next day 29<sup>th</sup> July 2015, after an early breakfast in the hotel, we left for our second industry Anil Bioplus. After arrival, a small seminar and a refreshment break we travelled through this

very large industry and learnt every step involved in the production of Native starch, Calcium gluconate and a few other enzymes. We returned to the hotel to satisfy our appetite which was followed by a brief break through the afternoon. We visited the amazing Kankaria Lake. All of our classmates enjoyed various water rides and local edibles. Dinner was arranged at the hotel at 21:00hrs.

The main motive of our 3<sup>rd</sup> day in Gujarat was to leave Ahmedabad and reach Vadodara late in the morning so we checked out of our hotel early at 7:30hrs. Breakfast was arranged in the form of food packets on the way so as to save time. After a two hour journey by our bus we directly reached Gujarat Eco Microbial Tech on the outskirts on Vadodara city. We visited their Microbiology laboratory and saw isolation and culturinf of microorganisms and their pilot Fermentor. We had our lunch in a nearby restaurant as our next visit was in the locality. We reached Agriland Biotech at 14:30hrs were we attended an introductory seminar as in most other industries we visited. We took a small tour through the industry to learn about various fermentation techniques and the products that were manufactured there. After the elaborate two industrial visits we reached Vadodara city were we checked in at hotel Oasis. There was no sightseeing planned on that day as we organized a Dj party at the hotel late in the evening. Everyone thoroughly enjoyed the party and a delish dinner post party.

Two visits were planned on the last day of our stay in Vadodara-Gujarat. After breakfast we left for CETP-Comman Effluent Treatment Plant. We understood each step involved in treatment of industrial waste. CETP is a pioneer in Gujarat known for its work in bringing the BOD & COD levels of waste water down so as to make it favorable to discharge this water in a water body. We left CETP at 13:00hrs and immediately rushed to MSU-Maharaja Sayajirao University. We visited the Biotechnology department laboratory and saw various equipments and procedures in the laboratory. Late in the afternoon we reached our hotel for lunch. After some time allotted for rest, everyone boarded the bus and took off for local sightseeing around Sur Sagar Lake. Everyone bought traditional sweets and did minor shopping around the lake. Dinner was packed for every individual person from the hotel and we reached Vadodara station and boarded the Vadodara express for our journey back to Bombay. Train departed at 22:30hrs from Vadodara and reached Bombay early at 6:00hrs. We bid each other farewell with all the nostalgic memories of the 5 days we spent together. It was the best

we could arrange as students and we will surely miss such experiences in the remaining portion of

our academic year. All in all it was a fascinating trip.

Report of Industrial Visit to Agriland Biotech Limited, Vadodara

Reporting Date and Time: 30 July 2015, 3:00 pm

Agriland Biotech Limited is being run under three directors- Mr. Mukesh Patel, Mr. Ramji Patel and

Mr Suresh Patel. We were given a presentation by Mr. Mukesh Patel about the company's profile

and various products manufactured by it and he also walked us through the infrastructure of the

company giving details on how each equipment works and for what it is used.

Agriland Biotech Limited was established in 1994 with the social intention of providing complete

agricultural solutions to our fellow farmers while keeping environment in order. The company is

working on manufacturing of products which can be treated on roots and nodules (michorhiza), and

surface tension. The products used are in amount 100-300 gm and these products are called as

mycosales. Agriland is a team of scientists and professionals having their core expertise in plant

pathology, microbiology and entomology. Pioneered with agri-biotechnology inputs in 1994, the

company is one of the leading one-stop solution providers for bio-intensive agriculture.

The company has adopted a world class environmentally robust manufacturing technology called

Surface Technology, which is one of its kinds in the sector and the products are of the highest

standards. Surface Technology allows farmers easy access towards availing high potency plant

protection products from the market thereby giving them safe and effective options.

This is the outcome of association of Agriland biotech with Enformtech-New Zealand, technology

assistance from BARC-Mumbai, TERI, DBT-New Delhi, in house research and pivotal scale up works.

The company has large base which houses many facilities and equipments like:

Submerged fermentation facility which include different fermenters with varying capacities

16000 Sq. ft. class 10, 000 clean room area

- DSIR approved Lab and dedicated R&D
- Foolproof upstream and downstream processes
- Culture bank supported with desirable storage
- Qualified manpower with core area expertise
- Storage facility to meet elasticity of demand and supply

The products made in Agriland biotech are highly potent, offer highest guaranteed colony forming units and are watersoluble thereby gaining overwhelming response and respect because of their user friendly attributes and high field efficacies.

The products manufactured by Agriland Biotech Limited basically include:

- Biological Fungicides
- Botanical Pesticides
- Biological insecticides
- Biological Nematicides
- Biofertilizers
- Pheromone traps and lures

Some of the products which they showed us were:

#### 1. SUDOZONE

Pseudomonas fluorescens

Sudozone is a Pseudomonas fluorescens based biofungicide cum bionematicide having Plant Growth Promoting activity also. It is available in suspoemulsion formulation. Sudozone acts on the hyphae of

plant pathogens by enzymatic and antagonistic actions. It consistently works as the nematode control .

agent also.

2. MONITOR

Trichoderma viride

It is a high potency biofungicide which uses Trichoderma viride, (2x108 cfu/gm Monitor). It works against wilts and rots diseases. Each spore of Monitor is capable of forming a colony that coils fungal pathogens and parasitizes them completely. Apart from effective disease control, Monitor decomposes raw organic farm wastes, solubilizes soil phosphorus, reclaims adverse soils, promotes plant growth and protects soil eco-system. Monitor is water soluble, low dose, high efficacy product.

Upon spraying, it leaves no stain on leaves and controls some foliar diseases also.

3. VANGUARD:

Vanguard is a broad spectrum botanical insecticide, acting in 4 powerful ways as Antifeedant, Repellant, Insect Growth Regulation and Oviposition deterrent, targeting wide range of insects & mites in all host crops.

Around 1500 ppm: 4ml / litre water and 10000 ppm: 2-3 ml/litre water of spray dosage is used.

4. YORKER

Paecilomyces lilacinus

Yorker (2x108 cfu/gm) is a high potency bionematicide that parasitizes eggs of nematodes and sometime infects reproductive organs of female nematodes. Yorker promotes plant growth also. Yorker is water soluble, low dose, high efficacy product, works against all plant parasitic nematodes like Root Knot Nematodes, Cyst Nematodes, Reniform Nematodes, Stunt Nematodes and Black

**Lesion Nematodes** 

5. MYCOZONE

Arbuscular Mycorrhiza

Mycozone is a product based on Vesicular Arbuscular Mycorrhiza. 1gm of Mycozone is a 3000 infective propagules. 100 gm of Mycozone delivers 3 lakhs propagules. Mycozone is a bio fertilizer useful in all crops. It induces crop roots rigorously, mobilizes nutrients and restores moisture through its vast network of Arbuscules and Vesicles. It lowers trans-planting shocks, imparts plant metabolic activities, reduces fertilizer dependence, reduces pesticide dependence and reclaims adverse soils. It is an active connection between roots and soil and environmentally compatible solution for plant growth and higher yield. Mycozone is an environment friendly input, reduces the need of chemical fertilizers. It is recommended to maintain soil fertility and to improve soil texture. It works well in water stressed condition also.

#### 6. NOMATE

Pheromone Traps & Lures for Lepidopteran Insects

Funnel shaped traps and lures for all important insects are available. It gives an excellent control by depriving females from mating.

Paper Trap for Tiny Sucking Insects

All sucking insects, males and females get attracted to trap colors and due to adhesive gum pasted on traps, insects get stuck with the traps, render unable to fly back to the crop foliages, die due to starvation.

Pheromone Traps & Blocks for Fruit Fly

Male fruit flies are trapped and females are deprived of mating.

#### Report of Industrial Visit to Anil Bioplus Ltd, Ahmedabad

# Reporting Date and Time: - 29th July 2015 at 10.45 AM

Anil Bioplus Limited (ABL) is a pioneer in manufacturing bioindustrials, industrial enzymes, microbes (with enzymes) and biochemicals (Gluconate, Citrate) in India through fermentation process developed by a robust inhouse Research & Development setup. ABL boats of a gamut of different grades of bioindustrial enzymes for textile, paper, food & beverages, pharmaceuticals industry and also in animal feed, distilleries and mineral gluconates which are used as a source of energy in veterinary applications, construction and various chemical productions.

ABL was established in 1939. Earlier it was known as Lal Bhai Group. It ventured into Biotechnology Business for manufacturing Calcium Gluconate & Enzymes in the year 1951. They started the fermentation products in 1956

The product basket of ABL includes:

- -Enzymes like Amylase, Cellulase, Proteose, Pectinase, Glucoamylase etc.
- -Biochemicals like Gluconates, Citrates
- -Microbes
- -Probiotics

This is catering to requirements of diversified industries which include Textile, Fodod Processing, Pharmaceuticals, Personal Care & Cosmetics, Animal Health Care, Paper, Beverages, Leather and Effluent Treatment.

#### **EXPERIENCE:-**

Dr. Ranvir Vats welcomed us to ABL. ABL deals with Corn-Wheat Milling, which is further separated as Dry Milling & Wet Milling. 500 tonnes of Corn is crushed on daily basis.

Separation of corn layers is processed.

- Every waste is used up e.g. for cow & other animals.
- Starch is used for different products. Basic one is the Native Starch.
- Starch > Starch Slurry > Liquification > Sacrification > Oxidization > Dextrose.
- Dextrose is used as a fermentation product in Corn Steep Liquor.

# **Enzyme Production:-**

- Selection of an enzyme.
- Selection of production strain.
- Construction of an overproducing strain by Genetic Engineering.
- Optimization of culture medium and production conditions.
- Optimization of recovery process & purification (if needed).
- Formulation of stable enzyme product.

The Enzyme is made to Powdered form as follows : Culture > Growth media > Broth media > Fermentor > Filteration > Powdered Enzyme.

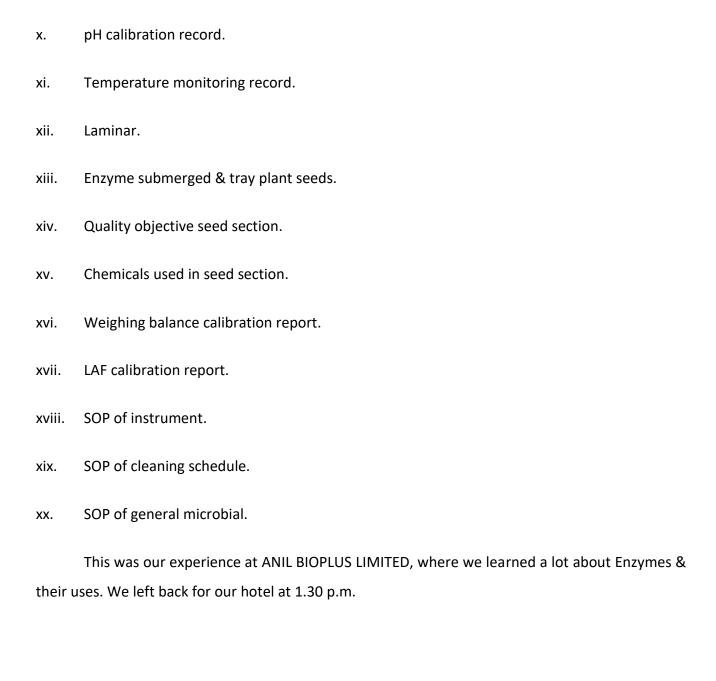
Applications of Enzyme in Various Fields :-

- Textiles amylase, cellulose > acid & neutral (liquid/powdered), biopolishing, colouring of cloth, fibre in shirts
- Sugar & Alcohol mollases & grain based > glucoamylase
- Beverages fruit based
- Food bakery
- Agriculture

•	Healthcare			
•	Food Processing			
•	Animal & Poultry Field - phytin			
•	Paper & Pulp - deinking, refining, paper bleaching			
Calcium Gluconate is obtained from Aspergillus niger & used in food and pharmaceutical industries.				
Sodium gluconate is used in cement industries. Also in food, pharmaceuticals, personal care, detergent/cleanser, metal finishing & textile.				
Instruments Observed :-				
•	Pilot Fermentor			
•	Environmental Shaker			
•	Incubator - solid state			
•	Ultra Filtration - used for Nano Filteration			
•	Small Fermentor - glass			
•	Autoclave			
•	Compressor			
•	Neutralization tank			
•	Basket centrifuge - used for downstream process			
Process :-				
Aspergillus niger				
Incubation Period - 27 Days				

# Incubation Temperature - 25K-30K

I.	Inoculation of the culture A.niger			
II.	Screening of culture A.niger			
III.	Colony pickup of A.niger			
IV.	Analysis for selection.			
V.	Transfer on working slant.			
VI.	Inoculation in cultivation medium.			
VII.	Harvesting of seed culture.			
VIII.	Seed culture supply to enzyme submerged plant for Ca gluconate production.			
Records Maintained :-				
i.	Autoclave validation record.			
ii.	Door & Window record.			
iii.	Floor cleaning record.			
iv.	Wall cleaning record			
V.	Electric fitting record.			
vi.	Furniture cleaning record.			
vii.	Ceiling cleaning record.			
viii.	Balance calibration record.			
ix.	Disposal record.			



Report of Industrial Visit to CETP, GIDC, Vadodara Nandesari Industries Association (NIA) CETP,

GIDC, Vadodara,

Reporting Date and Time: 31 July 2015 at 11:50 am

After arriving at the CETP Nandesari Industry, we were welcomed by Mr. Sudhir Verma, who was our

guide for the day, after which we were briefed about the design and intent of the effluent treatment

plant at NIA by the Chairman of NIA, Mr. Babubhai Patel. It took about an hour and a half to see the

entire facility.

The Common Effluent Treatment Plant was previously run by G.I.D.C which was then taken over by

Nandesari Industries Association in 1994 and introduced an underground drainage system, about

56km long channel, for the treated effluent to be discharged. The norms for treatment of effluents

are set by the Gujarat Govt. for checking the COD:BOD ratio of the effluent before discharging but

here at NIA CETP, along with COD:BOD, the treatment also includes Hydrodynamic Cavitation and

Electro-oxidation. About 60 industries' effluents are treated at NIA CETP which sums up almost to 55,

00,000 L of effluent being treated per day.

Nandesari CETP treatment based on Hydrodynamic Cavitation and Electro-oxidation

In the field of Industrial waste water treatment the BOD: COD ratio is pathetically very low, making

it almost impossible for conventional activated sludge process to function properly. In almost all cases

the conventional biological treatment process fail miserably. Nandesari Industries Association (NIA)

innovated and developed a commercial-scale electrochemical process for treating wastewater with

high COD and high TDS (Total Dissolved Solids) generated from a consortium of chemical industries.

Since the entire system is modular in nature, the process unit (hydro dynamic cavitator followed

electro-oxidation reactor) can be a stand-alone unit or can be added up in parallel or series depending

on the flow or COD load to achieve the required degree of effluent treatment. The innovation is useful

for industrial wastewater treatment and has the capability to prevent water pollution due to

discharge of untreated or partially treated industrial effluents in to final receiving bodies.

Advantages/Benefits of process change

- The low BOD: COD effluent can be treated efficiently.
- Industry units will be able to achieve the consented production quantities as CETP achieves discharge norms.
- ❖ Lesser area is required compared to the conventional biological treatment

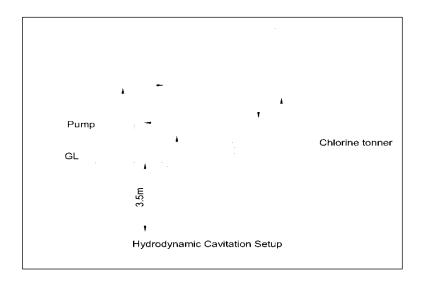
Theory of Hydrodynamic Cavitation

Hydrodynamic cavitation describes the bubble generation, bubble implosion and process of vaporisation, which occurs in a flowing liquid as a result of a decrease and subsequent increase in pressure. The process of bubble generation, and the subsequent growth and collapse of the cavitation bubbles, results in very high energy densities and in very high temperatures and pressures at the surface of the bubbles for a very short time. The overall liquid medium environment, therefore, remains at ambient conditions. Controlled cavitation can be used to enhance chemical reactions or propagate certain unexpected reactions because free radicals are generated in the process due to disassociation of vapours trapped in the cavitating bubbles.

Orifices and venturi are reported to be widely used for generating cavitation. A venturi has an inherent advantage over an orifice because of its smooth converging and diverging sections, such that it can generate a higher velocity at the throat for a given pressure drop across it.

This principle is used in the mineralization of bio-refractory compounds which otherwise would need extremely high temperature and pressure conditions since free radicals are generated in the process due to the dissociation of vapours trapped in the cavitating bubbles, which results in either the intensification of the chemical reaction or may even result in the propagation of certain reactions not possible under otherwise ambient conditions.

If the flow rate of effluent through the Venturi is increased, the extent of cavitation increases. At this point the chlorine when injected will oxidise the organic matter exploded bubble and due to the large surface area available, the oxidation by chlorine molecule is almost instantaneous.



#### Theory of Electro-oxidation:

The heart of the developed treatment process is the generation of nascent chlorine which is a strong oxidising agent to degrade the organic matter in the wastewater. The overall reaction for the oxidation of organic molecule with chlorine can be represented as follows:

The Chlorine radicals generated form hypochlorite. The hypochlorite (OCl<sup>-</sup>) generated is a strong oxidising agent which oxidises the organic matter in the wastewater.

The electrochemical reactor comprises of a set of stable electrodes housed in a side-arm attached to a cylindrical tank of capacity 15 m³. Direct Current is applied to the electrodes from a rectifier. The electrode surfaces comprise of mixed noble metal oxide coating. The effluent is fed to the tank and then flows into side-arm making contact with electrode surfaces where the actual electrochemical reactions occur. A certain residence time is provided by adjusting the flow rate to ensure satisfactory degree of treatment. The electrochemical reactor sets in a forced chemical change through the electrolyte owing to the potential difference between anodes and cathodes. The reaction zones are frequently restricted to the surface of electrodes at electrode/electrolyte interfaces. The prepared electrodes were useful for electrochemical elimination of pollutants from the industrial wastewater. Accordingly, the present innovation provides for an improved effluent treatment plant useful for the

treatment of highly recalcitrant industrial wastewater to obtain discharge quality effluent and thereby significantly prevents water pollution from the industrial sector.



Before Hydrodynamic treatment



After Hydrodynamic Treatment

#### Existing Treatment Process at CETP:

The waste water from individual industries is brought to the CETP by dedicated tankers. They collect in the tanker parking bay and the samples drawn from the tankers are sent to the CETP laboratory for analysis. Once the laboratory approves the sample, the tanker arrives at the effluent unloading area and drains the waste water to the underground holding tanks. From the holding tanks, the waste water is pumped to the equalisation tanks where the waste water becomes homogenous on getting mixed with the waste water from other industries. The waste water from the equalisation tank overflows into the lime mixing tanks, where lime is dosed from lime solution preparation tanks to break the colloids. The pH of the waste water is raised to 9.5~10. The water enters another mixing tank to provide complete mixing of the waste water with lime. This alkaline waste water is then pumped to the filter press to remove the suspended solids and the clear solution is collected intermediate holding tank.1 Nos. of 500 KL holding tanks is provided. Here salt is added via static mixers to act as electrolyte. This solution is then pumped through electrolysis units. The treated waste water from the electrolysis units is conveyed via a common pipeline to the existing primary clarifier.

High COD waste water from low volume waste water generating units is made alkaline by mixing lime solution. The mixture is made free from solids by passing them through filter press. This waste water is then collected in tanks for hydrodynamic cavitation. 8 hydrodynamic cavitators are provided in each 500 KL tanks. Here chlorine gas is injected into the hydrodynamic cavitator depending on the characteristics of waste water. The reaction is continued for 8-12 hours. Here the COD reduces from 3000 mg/L to about 800-1000 mg/L. Lime solution is added intermittently to maintain the pH in the alkaline range. Once the COD reduces to the desired content and the waste water has become colourless, the waste water is then sent for electrolysis.

After electrolysis the treated waste water is rich in residual chlorine, about 200~250 ppm which is used to degrade the organic matter in the sewage from the Nandesari Colony. As part of CSR activity, NIA has diverted the sewage line which was earlier dumped into the Mini River to the CETP. The sewage is pumped to the mixing tank (formerly Aeration tank) after passing it through a lamella clarifier (to remove the solids from sewage) and gets mixed with the residual chlorine rich treated industrial waste water. The solids is then drained to the filter press for dewatering along with lime sludge and disposed to TSDF of NECL. In the aeration

tank, streams from individual industries manufacturing inorganic chemicals area also added. All the combined streams are then conveyed to the pumping station of Vadodara Effluent channel Ltd. (VECL). From here the waste water is then pumped to the estuary of River Mahi via the 56 Km channel of VECL (formerly known as ECP).

Report of Industrial Visit to Gujarat Eco Microbial Technology Ltd.

Vadodara

Reporting Date and Time: 30th July, 2015, 10.40 pm

Gujarat Eco Microbial Technology Ltd. is amongst distinguished manufacturers and exporters

of a comprehensive array of botanical products. This company has developed various

patented technologies and innovative fermentation processes that helps in formulating

various products without altering the balance of the ecosystem.

The visit to this industry was guided by Mrs. Reena Shukla. The tour was carried out in

batches. Each batch was showed procedures from screening to production of bio fertilizers

and organic botanical products. Various sections shown are as follows:

Incubation room: Here screening procedures from screening procedures as well as

production of standard cultures was carried out. Most of the cultures produced were of fungi.

Verticillium lecanti (VL) This culture was inoculated on Sabaroud's potato dextrose agar and

on steamed rice medium.

Harvesting: A trained worker demonstrated the harvesting procedure using harvesting oil for

encapsulation to maintain the life cycle of fungus and to increase the shelf life. Harvesting

was carried out by adding harvesting oil to the petri plates containing the culture in sterile

condition. The colonies were scraped and collected in a beaker. Harvested culture was then

mixed with a carrier in the raio of 1: 4.

Propagation of culture: The harvested culture containing spores was mixed with a carrier such

as diatomaceous earth or charcoal and was then dried, followed by sieving. Then its CFU count

was taken and purity was checked. To check the purity, nutrient agar was used. This culture

was then sent for concentration and was re-isolated.

Re-isolation: The concentrated culture was fed to pink ball worm insect, due to which the gut

of the insect gets disrupted and it dies. The fungus was re-isolated from its gut. This culture

was then checked for purity by microscopic examination. For this purpose, lacto phenol

cotton blue stain was used round blue colored spores were observed.

Fermenter: Inoculation of culture was carried out in the fermenter room. The capacity of the fermenter is 110L, which was maintained at 37°C.

#### Procedure:

- 1. The inlet of the fermenter was disinfected by phenol.
- 2. 40 kg of media was added in it along with 1.2 kg of TSB and then autoclaved.
- 3. At 40°C, inoculum was added.
- 4. During fermentation process, the media was checked at intervals of 1 hour as a part of quality check.
- 5. The product was then collected and sent for drying. Drying process is carried out in bulk quantities in the dryer.
- 6. After drying it was passed through a sieve and was again sent for quality check.

  This sieved product was diluted with talcum powder and sent for packing.

The products of this industry are of two types, powderd form and liquid form. They are:

Powder form-

Trichoderma viridie

Trichoderma harzinaum

Veauveira vassiana

Liquid form-

Phosphate solubilizers

Potash solubilizers

Nitrogen fixers

Gujarat Eco microbial technology also produces good quality compost from cow dung. It involves various processes. These processes are distinguished in various areas.

1. In composting, first every  $\frac{1}{4}$  of the layer of bacteria is mixed with cow dung and is spread.

- 2. To it required volume of water is added.
- 3. After that, temperature is maintained by checking temperature regularly with the help of thermometer.
- 4. If the temperature is maintained after 7 days the mixture is transferred in second pit.
- 5. If temperature is not maintained, the mixture has to be kept for 10 days and temperature maintained should be 65-85°C
- 6. If temperature does not go above 65°C, the pit is rejected.
- 7. Now cooling stage, in this stage, temperature of the mixture will come down to 50-55°C. Then the mixture is sent for spray milling.
- 8. Spray milling area- in this area the mixture is sieved and then it goes to hammer mill area.
- 9. Hammer mill area- bigger particles are broken down to small particles. After that it goes to mixing area.
- 10. Mixing area- here the compost material is mixed with rock phosphate for 20-25 min.

  Bacterial culture added is 1 kg/600g and product is ready.

The product benefits as the work load of bullock is reduced and work is completed within 2 days. The product named Dharamrut is used as a soil conditioner. The cost of product in Karnataka and Gujarat is 450Rs. and outside Gujarat it is 515Rs.

#### The products are –

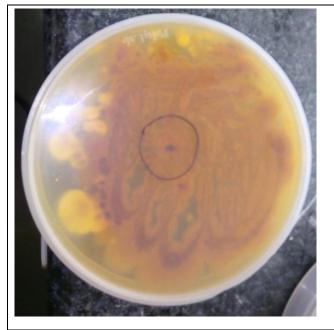
- 1. Diamond- used best for seed coating
- 2. Platinum- it is used after crop becomes 25 days old. It will help for growth. It has more phosphate solubilizer.
- 3. Gold- it is used for providing nutrition.
- 4. Pearl- it gives greenery to the plant.

# Products without bacteria-

- 1. Pushtidhara- neem based and contains no bacteria.
- 2. Baldhara- works as hormones. It gives good looks, size, height etc.
- 3. Haridhara- it is best used for good flowering outcomes.
- 4. Humic granules-coated with bacteria for greenery of plants.

Some of the pictures of the above processes that we saw are given below.







**ISOLATION OF ORGANISM FROM BALLWORM** 





**FINAL SEPARATION OF COMPOST** 

**GRANULATED FERTILIZER** 





DRYER

**COOLING TOWER** 

Report of Industrial Visit to FRIGE-IHG (Foundation for Research in Genetics and

Endocrinology- Institute of Human Genetics), Ahmedabad

Reporting Date and Time: 28 July 2015 at 11 am.

Foundation for Research in Genetics and Endocrinology - Institute of Human Genetics

[FRIGE's-IHG] is a dedicated NGO located in Ahmedabad, imparting training and research

programs in the field of Genetics and Endocrinology, for postgraduate and doctoral students

of various universities. It does this under the umbrella of FRIGE, a research foundation

rendering its services to the community and practicing physicians and consultants of the state

for over the last three decades through conferences/symposia and training programs. The

institute is recognized by the Government of India, Ministry of Science & Technology as a

Scientific & Industrial Research Organization (SIRO) and affiliated with Maharaja Sayajirao

University as a research organization for Doctoral program.

Organization is involved in carrying out research, teaching, training and translation services

in the field of human genetics. It is a SIRO recognized institute with imminent scientist like Dr

Jayesh Sheth, Dr Frenny Sheth and many are there on the board of advisors.

Our journey through FRIGE was guided by Dr. Jayesh Sheth. The following report gives a brief

description of the institute and about research that are taken place.

After reaching the institute we were taken to seminar hall. In seminar hall Dr. Jayesh gave us

the presentation about the IHG. Its main aim to strengthen the biological science in the

country and this institute is pioneer in many areas of science like the first to term coin the

term of Subbiochemical hypothyroidiam identifying patients in a subclinical stage of

hypothyrodism by TRH study, to provide genetic counselling to the affected families, to offer

advanced diagnostic facility in genetics and endocrinology for the human benefits.

There area of research includes: Cytogenetics • Biochemical Genetics • Molecular Genetics •

Molecular Cytogenetics • Endocrinology

A lot of information about various disease was given and also a brief idea of Array CGH,

Inhouse fish probe, screening for various storage disorder etc. was given by Dr. Jayesh.

After his presentation and brief discussion with the students in hall every one of us was taken the round through the institute.

First the student were taken to the lab where biochemical reactions and process were done.

A PHD student guided us by showing different instrument such as spectrophotometer and fluorescent spectrophotometer.

#### QUANTITATION OF NUCLEIC ACIDS IN SPECTROPHOTOMETER

One of the most commonly used practices to quantitate DNA or RNA is the use of spectrophotometric analysis. IHG generally use this principle for the quantitation of DNA samples. Spectrophotometric analysis is based on the principle that nucleic acids absorb ultraviolet light in a specific pattern. In case of DNA 5 ml of sample and 1 ml of distilled water is exposed to U.V light at a wavelength of 260 nm and 280 nm and thus the OD is measured. The resulting affect is that less light will strike the photodecter and this will produce a higher optical density (OD). Now this sample is loaded in the PCR.

IHG has two type of PCR: Standard PCR and Gradient PCR.

In a Standard PCR only one sample at a time can be loaded at one annealing temperature. So the process is to be repeated several times at different temperature. Whereas, in a Gradient PCR, samples can be loaded at eight different annealing temperature at a time only. Thus, the process becomes faster using Gradient PCR.

The IHG Molecular and Biochemistry department has three types of PCR machines: RQ-PCR, PT-PCR, and ARMS-PCR.

## E-GEL IMAGER - GELDOC SYSTEM:

This process examines the presence of exons in the sample by showing various bands on its software programme. This system is a compact and automated gel imaging instrument designed to yield publication quality images and analyzed results with just the push of a button. The Gel-doc system provides unparalleled flexibility with the use of four applications-specific trays:

1) UV trays for ethidium bromide staining of DNA gels and fluorescence imaging.

- 2) White tray for copper, silver and zinc stains.
- 3) Blue tray for nucleic acid applications.
- 4) Stain free tray for stain free imaging with Bio-Rad stain free gels.

Later on the students were taken downstairs, where we were addressed by Dr. Frenny Sheth. There she explained the institute's research work are contributed for diabetes. She gave a brief explanation of Array CGH study wherein DNA sample is slashed on slides and CGH is done. If red dots are observed there is loss of DNA and if green dots are observed there is gain. There computers are installed with NCUB browser which are important to study genetic diseases. Dr. showed us various charts containing information and research work in the cytogenetics and Array CGH studies.

We also observed the Sonicator in the biochemistry Dept. of IHG. They explain the role of sonicator. Sonicator is the standard version of homozygator acts as solid homozygometer giving the homozygosity to the samples, etc.

They also showed us the culture media room from outside since it was sterilized room. There were various equipment's in this room like Incubator, Laminar Air Flow, etc.

We also visited the part of cytogenesis where the following process takes place: HARVESTING→BLENDING→SCANNING→SCREENING→ANALYSING→PROCESSING→MICROS COPY→RESULTS.

We observed various phases under microscope in the cytogenetics lab.

This was our experience at FRIGE-IHG, where we learned a lot about molecular biology, biochemistry and cytogenetics. We left for our hotel at 2 p.m.

# Report of Visit to Maharaja Sayajirao University, Center of Genome Research, Vadodara

#### Reporting Date and Time- 31 July, 2015 14:30hrs

After departing from CETP- Vadodara, we visited the Centre for Genome Research in MSU Vadodara where we got guidance from Dr. B.B. Chattoo and colleagues. They made us familiar with the newest equipments and technologies involved in biotechnological experiments.

Firstly, one of the colleagues of Dr. Chattoo briefed us about the ongoing projects in their laboratory. Rice genome project was one of their ongoing works. We were later given information about PCR. The laboratory had various types of PCR equipments which included GRADIENT PCR and REAL TIME PCR, Gel Electrophoresis, HPLC etc and each of these were explained to us.

PCR- Polymerase Chain Reaction is a method to obtain various copies of a desired target DNA fragment. The PCR technique can be carried out in various ways like Real Time PCR, Gradient PCR etc. Real time PCR technique is used when amplified target DNA is simultaneously detected. It is also known as Quantitative PCR. Gradient PCR is done to try and optimize a PCR, to figure out what annealing temperatures work best.

Gel Electrophoresis is a method for separation and analysis of macromolecules like DNA, RNA & Proteins and their fragments based on their size and charge. There are two types: AGE (Agarose Gel Electrophoresis) & PAGE (PolyAcrylamide Gel Electrophoresis). AGE was demonstrated for us.

HPLC or High Performance Liquid Chromatography is a technique used to separate, identify and quantify each component in a mixture. It comprises of a pumping device generating a gradient of two different solvents, a steel enforced column and a detector for measuring absorbance. Pressurized liquid solvent containing the sample mixture is passed through a column filled with a solid adsorbent material. Each component interacts differently with the adsorbent material causing separation of the components. HPLC is used for detecting vitamin D levels in blood serum.

Later we moved to another laboratory where we were given information about Global Micro titer Assay. It is equipped with multiple wells which are used as small test tubes. It has become a standard tool in analytical research and clinical diagnostic testing laboratories. It typically has 6, 24, 96,384 or even 1536 wells arranged in a rectangular matrix.

We were also shown a confocal microscope which is an optical imaging instrument for increasing optical resolution and contrast of a micrograph. It enables a reconstruction of 3D structures from the obtained images. This instrument has advantages over the Fluorescent microscopy which uses fluorescence and phosphorescence instead of reflection and absorption to study objects. The only disadvantage of confocal microscope is that it is more costly than other microscopes.

We also saw their well equipped ATC laboratory after which we left for hotel at 16:30hrs for lunch after the long enlightening experience at MSU-Vadodara

# **Gujarat Industrial visit 2015- Images**



At Hotel Neelkanth Panshikura- Ahmedabad



With the team of Institute of Human Genetics



At Sabarmati Ashram- Tybsc Biotech



The divine Akshardham- Ahmedabad



With the team of Anil Bioplus



Kankaria Lake-Sybsc Biotech



With the team of Gujarat Eco Microbial Tech-Vadodara



The DJ Party-Vadodara



SurSagar Lake-Vadodara



Maharaja Sayajirao University-Vadodara

**Details of the Students and Faculty Members** 

Name of the department: Biotechnology

Name of the H. O. D/In charge: Dr. K. Z. Marolia

Names of the teachers and staff accompanying the said visit/study tour/excursion:

- 1) Dr. K. Z. Marolia
- 2) Mr. Jayesh Bhagat

Dates & Place of journey:

I)	Start Journey-Place: From	to
•	Date:	
11)	Start Journey-Place: From	
,	Date:	

## Student information:

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	Panchal			1995	A+ve	4	<u>o.com</u>
9	Medha	TYBSc	Female				
	Mahamun			16-09-		787532071	aditi.s3194
	i			1995	B+ve	1	@gmail.com
10	Shruti	TYBSc	Male	12-08-		770923445	dj.cool199@
	Bhansali			1995	B+ve	5	gmail.com
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12	Umesh	TYBSc	Male	06-04-		997094293	nhmaru@ga
	Sharma			1995	O+ve	9	mil.com
13		TYBSc	Male				mishraneela
	Priyanka			21-05-		887922518	m3110@gm
	Bhawrani			1994	O+ve	2	ail.com
14		TYBSc	Male				nidukhan27
	Krishna			05-05-		809744108	50@yahoo.c
	Parikh			1995	B+ve	4	<u>om</u>

### Dear Parents/Guardian,

The students of SYBSC and TYBSC are required to visit industrial and research establishments as a part of their curriculum. The Department of Biotechnology is organizing an industrial visit to Gujarat from 27<sup>th</sup> July to 1<sup>st</sup> August, 2015. The cost of the visit is Rs 5500/-. This will include all expenses of boarding and lodging, bottled water, entry fees, sight seeing, transport to and from Gujarat, Hotel(3 star) accommodation on 4 sharing basis. Below is the tentative itinerary and contact details that you may avail of incase you feel the need to.

Day & Date	Day Number	Activity	
27 <sup>th</sup> July- Monday	0	Depart for	Tour Operator- Mr.
		Ahmedabad from	Rupesh Kamble
		Mumbai by	Manmandir Travels -
		Lokshakti 22927	+91 9702454343.
		from Bandra at	

28 <sup>th</sup> July-Tuesday	1	19:40 hrs (overnight journey of 6-7hrs) Reporting time: 19:00 hrs Arrival to Ahmedabad at 5:00hrs. Breakfast at hotel. Visit Institute of Human genetics at 11:00 hrs. Lunch at hotel. Evening sight seeing.	Hotel in Ahmedabad- Hotel Neelkanth Panshikura Address: B/H town hall Ahmedabad. Ph: 079- 26578294/95 Sight seeing- Kankaria lake, or Sabarmati Ashram
29 <sup>th</sup> July-Wednesday	2	Breakfast in Hotel. Visit to Anil Bioplus Ltd at 9:30 hrs. Lunch in hotel. Visit to Concord Biotech Ltd. Sightseeing (if time permits). Overnight in Ahmedabad.	etc
30 <sup>th</sup> July-Thursday	3	Breakfast in Hotel. Leave for Vadodara. Reach hotel. Visit Gujarat Eco Microbial Tech. Lunch on the way. Post lunch visit Agriland Biotech Ltd. Evening Shopping/ Party depending on time availability.	Ahmedabad to Vadodara journey by bus. Journey duration 1.5-2hrs Hotel in Vadodara- Hotel Oasis. Address: Opp. BBC tower , Sayajigunj, near Vadodara Railway station Ph: 0265- 2222054/55
31 <sup>st</sup> July-Friday	4	Breakfast in Hotel. Visit Common Effluent Treatment Plant. Lunch at hotel Visit: MS University Baroda Dept of Biotechnology Rest of the day includes Sight	Sight Seeing- Sayagi Baug, Laxmi Vilas Palace or similar Place

		Seeing. Depart for	
		Mumbai from	
		Vadodara by	
		Vadodara express	
		12928	
		at 22:30 hrs.	
		Overnight journey of	
		6-7 hrs.	
1 <sup>st</sup> August- Saturday	5	Arrival to Mumbai at	
		6:00hrs	

### Please ensure that your ward carries the following items during the industrial visit:

- 1- Dinner from home for first night in train
- 2- College identity card (compulsory)
- 3- One water bottle (compulsory)
- 4- Notebook and Pen to record the events
- 5- Appropriately dressed with suitable attire and carry umbrella as it is monsoon.
- 6- Any medication that is required and a toilet kit.
- 7- **No laptops** or any similar valuables other than mobile phones.
- 8- We would carry FIRST AID KIT with us.

My colleague Prof, Jayesh Baghat (<u>jayesh@somaiya.edu-</u> 9869179969) will be accompanying us. Contact person in Bombay: Prof, Amit Jethwa (9870306360). Prof. Hemangi Kanugo(8652650989)

Yours sincerely,

Dr. K. Z. Marolia

HOD Biotechnology (<u>kamalrookh@somaiya.edu</u> 09820253414)

# INDUSTRIAL VISIT (Gujarat) – 2015 room and industry allotment

GROUP NO.	NAME	ROOM NO. IN AHMEDABAD	ROOM NO. IN VADODARA	INDUTRY ALLOTED
1	Poonam Bokhare Monica Chavan Medha Mahamuni Rachana Panchal			Gujarat Eco Microbial Technologies Pvt. Ltd.
2	Krishna Parikh Priyanka Bhawrani Manali Nikte Khushali Patel			Common Effluent Treatment Plant

3	Kirti Parjia Anjali Soni Shraddha Marvania Bhagyashree Sawant		Anil Bioplus Ltd.
4	Nirali Bhanushali Pooja Jain Karishma Daiya Priyanka Devlekar		Institute of Human Genetics FRIGE
5	Sagar Bhanushali Varun Tiwari Bhumik Parmar		Agriland Biotech Ltd.
6	Jayesh Sir Jamil Chawda Nitin Munde Umesh Sharma		Concord Biotech Ltd.
7	Marolia Ma'am Shruti Bhansali Kajal Singh		

Biotechnology department, 16 June 2015

To,
The Principal,
K. J. Somaiya College of Science and Commerce.

### Dear Sir,

Thank you for your encouragement and permission to arrange the trip to Gujarat for the students of S.Y.BSc, T.Y.BSc, and M.Sc part II of BIOTECHNOLOGY. The trip has been planned from 27<sup>th</sup> July 2015 (Monday night) to 1<sup>st</sup> August 2015 (Saturday morning) (5 working days). The details of the trip are in the attached letter to the parents that I plan to send after your approval. 30-35 students would be going for the visit and two staff members will accompany the students. Please therefore sanction permission to proceed further in the matter. The journey would be by train and therefore the concessional bookings need to be processed as soon as possible. Please permit us to use the railway concession form book at the earliest.

Thanking you in anticipation, of your kind cooperation.	
Yours sincerely,	
Dr.K.Z.Marolia	
Head of Biotechnology Principal	Signature of

## K. J. SOMAIYA COLLEGE OF SCIENCE AND COMMERCE

VIDYAVIHAR, Mumbai-77

I Bro/ Sis	
Daughter/ Son / Ward of Shri /	/ Smt
Of—am	. Lam studying Biotechnology and have a Roll No. ——. L—
Going for an excursion to my own will as the part of the	on <u>an</u> d return on <u>at</u> curriculum.
understand the risk involved in the principal and the staff mer responsible for any accidents,	jointly and severally an excursion and hereby absolve the college management, mbers of Biotechnology of the said college from being held injuries and medical complications thereof or for any fatal by rules and regulations and behave in a disciplined manner.

Signature of Parent/Guardian
Student

Signature of

Dated this———— day	/ of
--------------------	------

Roll No.	Class	Name of Student	Emergency Phone Number

Please mention any known possible medical condition that is likely to require medical attention. Drugs student is allergic to

## **TEACHERS PERSUING Ph.D.**

- Soniya Shetty- Microbiology
- Supriya Janabandhu- Botany
- Prashant Shah Statistics
- Subhash Krishnan-Mathematics
- Jitendra Pendharkar- Physics
- Smita Survase-Physics
- Makarand Niphadkar-Mathematics
- Shreya Patil-Zoology
- Monika Lodha- Commerce
- Chetan Jiwani-Commerce
- Bharati Makhijani- Commerce
- Sachin Achrekar- Commerce
- Manisha Damle-Accountancy
- Hemangi Kotibhaskar-Biotechnology
- Shabib Khan- Microbiology