**SIES COLLEGE OF ARTS, SCIENCE & COMMERCE**

Sion(west), Mumbai-400 022

**YEARLY REPORT OF PHYSICS DEPARTMENT**

Physics Department organized the following events during the academic year **2016-2017**.

1. **Bridge Course in Practicals**
	1. For TYBSc- Two day course for TY BSc Physics students was conducted on 8th and 9th June 2016 in handling the spectrometer, develop skill in soldering simple circuits and testing them and also connecting electronic circuits on bread board and testing them. From this bridge course, 31students were benefitted.
	2. For SYBSc - One day bridge course in Physics practical was conducted for SYBSc students on 9th,10th and 11th June 2016 separately for each batch. A total of 62 students were fortunate to participate in this course. The course was conducted to develop skill in the use of measuring instruments – vernier calipers, micrometer screw gauge, travelling microscope and adjustments of spectrometer. From this bridge course, 59 students were benefitted
2. **Bridge Course in Theory**
	1. For MSc Part I : Problem solving in Classical mechanics and Electrodynamics 26th July and 28th July 2016---9 students were benefitted
3. **Orientation cum Class counseling**
	1. For TYBSc- Students of TYBSc Physics were counseled by Head of the Department Mrs. Pratibha Pai together with the senior faculty Prof. Vinod Menon on 7th July 2016 after the completion of lectures. Effective time management, attendance in lectures and practicals, action taken for non attendance, conducting regular tests, maintaining personal health etc. were discussed. A total of 26 students were benefitted.
	2. For SYBSc- An Orientation cum Academic counseling session was held separately for B and C division on 7th June 2016 after the completion of their lectures. Students were counseled and effects of absenteeism in lectures and practical were explained by Mrs. Pratibha Pai, Head of the Department as the syllabus was revised and new experiments were introduced. A total of 45 students were benefitted.
	3. For FYBSc-An Orientation lecture with a power point presentation was delivered on 16th July 2016, for the students of A- and B division separately. The newly introduced syllabus was presented before them. Examination pattern was explained as the internal assessment component was scrapped. The conduct of Regular Practicals and Lab skill experiments was explained. Writing of journal and regular submission was also demonstrated. The main aim of such a lecture from Dr. Sonali Ambardekar was to ensure that no student of FY BSc class would default in practicals. Beneficiaries were 61 students from A division and 41 students from B division. Mr**.** Maheshwar Falakealsobriefed the students on **“Career Options after BSc Physics”** as part of the lecture.
	4. For MSc Part I- An Orientation lecture was conducted for MSc Part I students on 16th July 2016. All 10 students reported.
4. **Online course NPTEL and mentorship**

National Programme on Technology Enhanced Learning(NPTEL) is a project funded by the Ministry of Human Resource Development. NPTEL provides e-learning through online Web and Video courses in Engineering, Sciences, Technology, Management and Humanities. This is a joint initiative by seven IITs and IISc Bangalore. Two faculty members from the Department are registered mentors for various courses taken up by the Local Chapter.

* 1. Dr. Vishal Dev Ashok is a mentor for 2 courses: 1. Introduction to Electromagnetic theory(5 students) 2. Engineering Thermodynamics. (2 students)
	2. Mr. Anand Ambardekar is a mentor to one course: 1. Basic Electrical circuits(2 students)
	3. Dr. Vishal Dev Ashok is a mentor for 2 courses: 1. Engineering Mechanics 2. Matlab Programming for Numerical Computation.
1. **Skill development course**
	1. For MSc: Physics Department organized Skill development course for the students of MSc (Physics-E1) Part 1 students on 25th, 27th and 29th July 2016 from 8am to 2pm each day. The course was divided into 4 different sections. They were
2. Desoldering the soldered electronic circuits.
3. Soldering the given circuits, checking it for the continuity and measuring the output
4. Drawing schematic diagrams using the software ‘Express PCB’
5. Skill in making a power point presentation using MS office.

The technique of desoldering a soldered circuit was taught using the pump and wick on 25th July 2016. Students were made to learn this skill and they desoldered nearly ten old circuits which were not in use.

Then the technique of soldering an electronic circuit was taught on 27th July 2016. The circuits which students had already learnt in their undergraduate syllabus were soldered. They learnt and mastered the skill in soldering on both Printed Circuit Boards(PCB) as well as on the chassis attached to wooden boards. Passive Low pass filter, passive High pass filter, Bridge rectifier circuits were all soldered. Then they checked these circuits using signal generator and a CRO. When the expected output was achieved the students were very much satisfied. Some of the circuits were carefully desoldered for future use.

On 29th July 2016, the students were trained to draw schematic diagrams using Express PCB software. First order High pass and first order low pass filter circuits were drawn by the students under the guidance of the staff members Mr. Mahesh Falake and Ms. Naziya Shaikh.

After the completion of drawing schematic diagrams, skill in making a **good power point presentation** was taught. Use of design in a slide, use of bullets, use of minimal text, use of self explanatory diagrams, more of talk and rather than reading from the slides etc. was demonstrated by Mr. Swapnil Jawkar, one of the faculty from Physics department. He stressed the importance of facing the audience. All the students, 9 of them actively participated in the Skill development course and could enhance their skills in a relaxed and joyful manner.

Skill development session on “Graph Plotting and analysis” for held on 19th August 2016 from 1.30 pm to 3.30pm for the students of MSc (Physics-E1) Part 1. Mr. Swapnil Jawkar, in charge of the class conducted the session. How to mark the observational points on graph paper, the need to mark the origin, need of a scale, calculation of slope etc was stressed and actual plotting on MS Excel was explained and students were very happy.

* 1. For FY BSc: Plotting of Graph is an integral part of any experiment and a student should be instilled with proper skill in drawing and analyzing a graph. The department organized a session wherein power point presentation was made by Dr. Sonali Ambardekar on 1st August 2016 for B division and Dr. Aarti Muley Iyer for A division on 2nd August 2016 after the completion of their regular lectures. Some of the queries were also answered and students were made to draw one graph on the spot for the given data.
1. Training Programme:
	1. For TYBSc –
		1. ***C++ programming***- Two day Training programme in C++ was conducted in the IT (Junior) laboratory on19th and 21st November 2016 from 7.15am to 10.15am on both days. One computer system was made available for a pair of students. They were provided resource material (programs) as a part of content learning. The resource material was designed by so that students learn from a simple program slowly to higher level program. All programs were written by Head of the Department Mrs. Pratibha Pai. Students were trained in using programs with simple Input-Output statements (Sequence structure), if and if-else statements( Selection structure) and also for- while-and do while statements (Loop structure). The main purpose in conducting this programme was to develop and enhance programming skills in students. The training programme was highly successful with the cooperation from faculty Swapnil Jawkar and Seema Jadhav. A total of 33 students were immensely benefitted.
		2. Microprocessor 8085- Four day Training programme (Basic, Intermediate and Advanced) in 8085 microprocessor was conducted on 26th November 2016, 3rd December 2016, 10th December 2016 and 17th December 2016from 7.30am to 10.30am on all the 4 days. One microprocessor kit was made available for a group of 2 students. Each student was given the op code sheet free of cost. They were also given resource material containing assembly language programs designed specially to be understood, build the logic and to be executed by various methods. Entering the op codes and data, execution and viewing the result was explained. The resource person was Mrs. Pratibha Pai, Head of the department. Students were very much contented and showed great interest in learning assembly language programming. A total of 34 students got the benefit from this training. Originally planned for 2 days, the programme was extended because of the demand and interest shown by our TYBSc students. The training programme was highly successful with the co operation from faculty Kiran Nabar, Sonali Ambardekar and Mahesh Falake. The main aim in conducting this programme and designing the resource material was to enhance the logical thinking and programming skills.
	2. SYBCom - Two day training programme in MS-Access was conducted by Dr. Aarti Muley Iyer on 23rd November 2016 and 26th November 2016 for two different batches of students. A total of 27 students were benefitted.
	3. FOR M.Sc.-

***Getting started with PCB designing and manufacturing***- This was a Demo-cum training programme held for the students of M.Sc. (Physics- E1) both Part I and Part II on 23rd and 24th of December 2016. All the tools and techniques of software (EXPRESS SCH and EXPRESS PCB) very useful to design any electronic circuits were explained. Schematic diagram of “Burglar alarm circuit” was designed. Students were taught to draw a positive mirror layout. The students printed layout on copper side of PCB. Then for etching they used FeCl3 solution to remove extra copper layer. After this process, Mr. Mahesh Falake trained them to drill at required places and made the PCB ready for the circuit. However the following topics were covered:

(1) Schematic Design

(2) Component Footprint Design

(3) Integrated Library Design

(4) PCB Design & Routing

(5) Etching of PCB

(6) Drilling and soldering techniques

 The resource person Mr. Maheshwar Falake was assisted by Ms. Naziya Shaikh. Both are Staff members of Physics Department. The main aim in conducting this program was to help them in making circuits for their projects in embedded system. A total of 18 students took part in this program. The oral feedback for the program was very positive and the students have requested that the program be conducted again.

1. **Workshops:**

***Learning Electronics using Interactive Simulations-***This was a three day workshop organized on 19th, 20th and 21st July 2016 in association with Computer Science Department, SIES College and Department of Inter disciplinary program in Educational Technology, Indian Institute of Technology, Bombay.

With semiconductor technology, it is observed that there is a gap between class room teaching and learning using reference books. To bridge this gap, a concept known as micro-macro thinking was adopted wherein a student learns on his own using interactive simulations and understands what and how process takes place inside a semi conducting device. Ms. Anura Kenkre from IIT Bombay conducted the work shop. Ten MSc Physics Part 1 students, six MSc Computer Science Part 1 students, nine SYBSc students (total 25 students) and one faculty member were benefitted. The workshop was highly appreciated by the participants. Principal Dr. Harsha Mehta was kind enough to distribute the certificates to all participants.(Diode , thermistor, transistor, LED etc…)

1. Utkarsha Activities (Conducted in collaboration with Physical Society):
	1. Spectrum Exhibition –This exhibition is a method of Learning by experience. Experiments in optics and electronics were set up by the students under the banner “Gravity” and exhibited on 19th September 2016 during Utkarsha, the annual literary fest. Nearly 40 students participated in this exhibition and 200 visitors witnessed. They all gave good feedback.
	2. Track Attack: This event was a physics themed Musical housie. Physics keywords are inserted into Bollywood songs that participants have to mark on their housie cards once they have identified the word in the song.
	3. Fizika: This was a time trial based event in which 6 activities were setup and each participant was given 210 seconds to complete each activity. This was a inter college event involving teams of two participants and the total time taken of both team members was taken to decide their performance. The three shortest total times were declared the winners or the event. Over 8 colleges sent a total of 16 teams to take part in the event.
2. **Remedial Course:**

Students who took admission late and /or who missed practical sessions due to ill health and other valid reasons were permitted to perform experiments under remedial course. The course was conducted after the completion of regular practical sessions A record of the course was maintained to ensure that the students completed all the required number of experiments as prescribed in the syllabus of Mumbai University. Such students were able to clear their default and were eligible to appear for practical examination

* 1. For BSc-
		1. TYclass Semester 5: heldon 4th and 8th August 2016 and 08 students were benefitted
		2. TY class Semester 6: Held on 6th Jan, 7th Jan and 24th Jan 2017 and 10 students were benefitted
		3. SY class Semester 3: held on 24th, 26th , 27th ,31st August 2016 and 1st, 2nd, 3rd September 2016. ---- students were benefitted (31st Aug Remedial cancelled due to principal’s farewell).
		4. SY class Semester 4: held on 6th Feb, 8th Feb and 10th Feb 2017. About 15 students were benefitted.
		5. FY class Semester 2: held on 23rd, 24th, 27th, 28th of Jan and 1st, 2nd February 2017. 20 students were benefitted.
	2. For students who are going to appear for the first year additional exams, extra lectures were held for them from 13th Feb 2017 to 27th Feb 2017. Here certain essential topics were redone for them so as to help them prepare for the exam. Most of the lectures were taken by Prof Vinod Menon, Prof Kiran Nabar & Prof. Maheshwar Falake.
	3. Revision lectures and problem solving sessions are planned for First year students from 29th of March onwards to help clear doubts and to better prepare the students for the final exams beginning on 10th April 2017
1. **Assignments –**
	1. For SYBSc Physics Students, assignments to solve numerical problems were designed. Students solved these at home and submitted regularly. These were checked by the teacher in charge.
	2. For TYBSc Physics Students assignments to solve numerical problems were designed. Students solved these at home and these were checked by the teacher in charge.
	3. For FYBSc Physics Students, assignments covering essential topics in Physics Paper 1 were designed. Specific questions were discussed in class and others were solved at home by the students. Difficulties faced by the students in the assignment were dealt with by the teacher incharge

These assignments helped the students in overcoming phobia and build self- confidence.

1. **Infra structure upgradation**
	1. MSc laboratory:
		1. The department is catering to practicals for MSc part 1(10 students) and part 2(10 students) in our college while lectures are engaged in cluster centre college. As the syllabus demands higher version computers, and various software involving higher memory is needed, the department had difficulty in conducting practicals. Hence ten computers from IT department were requested and procured (they were replaced by new systems in IT dept.) and PG Physics lab was upgraded.
		2. A new Laser Printer to take outputs of project reports, graphs and program output is installed.
		3. The computers in MSc lab were inter connected by LAN for easy working when interfacing experiments will be conducted.
		4. Staff room No. 2 in front of the UGC/PG Research Lab was renovated and made available for use of the Physics Staff members and NPTEL activities.
	2. Physics store room
		1. Internet connection is required in every store room for use by laboratory assistants in regularly sending purchase orders online, sending requisitions, communicating with dealers for purchase of equipment etc. So, the 2 computers in Physics stores were connected to internet and printers separately for smooth working of both Junior and Degree college sections.
2. **Post Graduate Practical Examination Centre**

Department of Physics was selected as Practical Examination Centre for Semester III(Part II) of MSc to conduct University examination from 13th December 2016 to 16th December 2016 (4 days).

1. **Methods adopted for Growth in Academic performance of Physics students** –
	1. Regular tests were conducted for TY students by respective teachers. Their answer papers were evaluated and feedback was given.
	2. Class test Series -1 was organized for TY students from 12th July 2016 to 16th July 2016. This was conducted after the completion of Set of regular experiments. The question papers were set keeping in mind both the University pattern and Internal Assessment pattern. Students learnt how to manage time to complete the paper during examinations.
	3. Class test Series -2 was organized for TY students from 9th August 2016 to 13th August 2016. This was conducted after the completion of Set III of regular experiments. Students answered all the papers with enthusiasm in completing the paper. The answer papers were evaluated and feedback given to them.
	4. The class note books of TY students were regularly checked, record was maintained by respective faculty member and feedback was given.
	5. University question papers of earlier years were made available and students were encouraged to write the answers keeping the time duration into account.
	6. On 29th August 2016, a preparatory session on Instrumentation Practicals and counseling conducted for TYBSc students. 34 students gained from this session.
	7. Question bank in each paper was made available to the students(FY,SY and TYBSc) in order to make them aware of the probable questions.
	8. Class/Home assignments were given to SY and TY BSc students. They were asked to submit these for evaluation. Queries were answered and advice was given for improvement.
	9. Class Tests for all papers were conducted in Sem 1 and Sem 3 Msc for part 1 students. Part 1 students were assigned topics to prepare notes on. The prepared notes were then shared amongst the students.
2. **Industrial Visit:**

TYBSc: Six students from TY BSc Physics joined the Educational tour to Shimla jointly organized by various science departments.

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	9. Class Tests for all papers were conducted in Sem 1 and Sem 3 Msc for part 1 students. Part 1 students were assigned topics to prepare notes on. The prepared notes were then shared amongst the students.
2. **Innovative methods adopted by the Department in Teaching and Learning**
	1. **WhatsApp group** **and “Today’s question”:** The TY BSc Physics students formed a WhatsApp group named “Physics 16-17” in mobile phone. For this group, Prof. Vinod Menon posted one question everyday titled “Today’s question”. The main aim was to engage the students in discussing concepts and fundamentals in different areas in Physics. The students waited eagerly to know what will be “Today’s question”. The response from the students was very fast. It was amazing to read the answers. Dr. Vishal Dev Ashok was also supportive in the learning process. Numerical problems and problems to improve analytical and logical skills were also posted. Other Faculty members posted recent news in research and e-links while students posted puzzles.

**“Today’s question”** was also posted on **whatsApp group** named “M.Sc(16-17)”created by MSc students. The idea was to prepare the MSc students for SET/NET examination.

* 1. **“By the Student, for the Staff”(Talk): Inculcating research at the grassroot**(FYBSc):

This was a newly introduced way of sharing knowledge wherein a talk would be delivered by a student to the colleagues in the department. The talk is based on the research work undertaken. Mr. Sudhanva Joshi of FYBSc delivered a talk titled “Theory of Quantum Relativity” on 27th September 2016. He answered all the queries put across by the staff members.

1. **Students’ involvement in Extracurricular activities:**
	1. Our student studying in MSc Physics Part 1, Ms. Anjali Menon was in news in a digital magazine named ‘Teenager Today’ in the July 2016 issue. The topic was ‘Water conservation’ and Anjali’s opinion was found to be excellent and was published. Following was the excerpt:



* 1. **Inter collegiate competition participation and achievements**:
		1. Jaiswal Yogita and Shaikh Afifa (both TYBSc Physics) won the First prize in Sci-Harmonics Phy-Nova , an inter collegiate competition organized by NES Ratnam College on 16th December 2016.
		2. Yadav Karthik and Jay Kumar Sharma (both TYBSc Physics) won the Consolation prize in Sci-Harmonics Phy-Nova , an inter collegiate competition organized by NES Ratnam College on 16th December 2016.
		3. Ajay Kumar and Rohan Kamble (both TYBSc Physics) participated in Sci-Harmonics Phy-Nova , an inter collegiate competition organized by NES Ratnam College on 16th December 2016.
	2. **Student Office Bearers:**
		1. Ms. Namrata Kadam of SYBSc – Jt. Secretary, College Gymkhana and – Student Council representative
		2. Mr. Karthik Yadav of TYBSc – Secretary, College Gymkhana, Student Council representative
		3. Ms. Manju Mathew of TYBSc- NCC Cadet (Girls’ Wing)
1. **National Science Day:**

The Physics department and Physical Society of SIES college of Arts, Science and Commerce organized “Exhibition on Experimental techniques used in Physics.” on the account of National Science Day on 1st March, 2017 in SIES High School, Matunga.

The Following students from TYBsc A Division were part of the organizing and exhibition team:

1. Ajay Kumar
2. Jayakumar Sharma
3. Rajan S Gupta
4. Khan Irshad
5. Sandeep Suresh
6. Rohan Kamble
7. Yadav Karthik
8. Essaky Arumugam M (Lab Attendant)

Following experiments were demonstrated to school students:

A) Application of Newton’s laws in Rocket propulsion.(Demonstrated by Sandeep Suresh)

B) Total internal reflection and its application.(Demonstrated by Ajay Kumar)

C) Experimental understanding of Snell’s law.(Demonstrated by Khan Irshad and Rajan S Gupta)

D) Spectrum using Spectrometer.(Demonstrated by Karthik Yadav and Jayakumar Sharma)

E) Electromagnetic induction.(Demonstrated by Rohan Kamble)

The event started with volunteers enlightening school students about the achievements & contribution of Dr C V Raman. The event started at approximately at 9.30 am and concluded at 2.00 pm.

Around 350 school students participated in this event. Students enthusiastically participated in the event. The main objective behind this event was cultivation of scientific thinking and also to develop interest in the field of science in the young minds which was successfully achieved

1. **Target JAM:** This programme captioned as “***Extra Physics***” was an activity shouldered by Physics Department during the academic year 2015-2016 and started from 2nd May 2016. Few sessions were held to know the level of understanding of the students. From the month of June 2016, regular coaching in all the 7 modules was planned and executed daily. A nominal fee of Rs. 2000/- was collected from the students registered under this programme to incur the expenses. Six of the faculty from the department mentored the students and a record was also maintained. This coaching cum mentoring would help the students in preparing for any competitive examination. Four students benefitted from this programme.
2. **Healthy practices adopted:**
	* + 1. Laboratory Hand manuals were prepared for the revised syllabus implemented from the academic year 2016-2017 for SYBSc class.(75:25 CBSGS system)
			2. Laboratory Hand manuals were prepared for the newly introduced syllabus implemented from the academic year 2016-2017 for FYBSc class.( CBSGS system without internal assessment)
			3. Laboratory Hand manuals prepared for SYBCom (Computer Programming) and TYBCom (Computer System and Application) were reviewed and edited.
			4. For the first time, Laboratory Hand manuals were prepared for MSc Part 1 and Part 2, semester 1, 2, 3 and 4. Two versions were made, one for students and another for teaching staff. The student version did not have any programs.
			5. Two Preparatory practical sessions were organized on 5th October 2016 for TYBSc students to make them confident about the experiments.
			6. **Financial help rendered: Mr. Roshan Chandan, TYBSc Physics student underwent kidney transplant surgery this year and to take care of his medical expenses(post surgical), the department contributed a total sum of Rs.46,400/-(Forty six thousand four hundred only)in three installments.**
			7. **Financial help rendered :Mr. Ravindra Kori of MSc Semester III was given financial aid of Rs. 7000/- by faculty members to support his tuition fees for Part II.**
			8. Regular staff meetings, both teaching as well as non-teaching, were held to review and plan various activities in the department.
3. **Research Activities/ Avishkar / Publication by students**
	* + 1. **Minor Research: UGC** Minor Research project titled “ Nano Phosphor for Solar energy conversion” undertaken by Dr. Aarti Iyer(Muley) was completed and submitted in December 2016.
			2. **Publication:** The research paper by Mr. Sudhanva Joshi, a student of FYBSc, titled “ Theory of Quantum Relativity” was published in the International journal Journal of Quantum Information Science on 16th November 2016. It can be cited in the following link<http://www.scirp.org/Journal/PaperInformation.aspx?PaperID=72030> for reference.
			3. **Avishkar- A Research :** Mr. Sudhanva Joshi, a student of FY BSc, Physics participated in the Zonal round held on 19th December 2016 at SIES college of Commerce and Economics, Sion(East). The title of his research presentation was “On Strings, particles and infinity – Theory of Quantum Relativity”
4. **Inter disciplinary activities:**

**With Biochemistry department:** A three day crash course in Physics titled “Concept learning in Physics for Entrance Exams in Biological Sciences” was conducted on Saturday 3.12.2016, Sunday 4.12.2016 and Monday 5.12.2016 for the students of biological sciences**.** Two senior faculty from Physics Department, Mr. Vinod Menon and Mr. Kiran Nabar conducted the sessions. Our faculty made them more confident about solving problems and understanding the concepts very clearly. A total of 21 students participated and got the benefit.

**STAFF ACHIEVEMENTS:**

**TEACHING STAFF**

1. **Presentations:**
	* 1. Dr. Aarti Iyer Muley: Delivered a Keynote Address on “Photoluminescence in various phases of Cerrousulphate” at the International Conference on Functional Materials (ICFM-2017) organized by the Department of Physics, SCSVMV University, Kanchipuram, India on 2nd and 3rd of March 2017.
2. **Publications:**
	* 1. Dr. Vishal dev Ashok: Co-Authored a paper titled “Evolution of magnetic properties and exchange interactions in Ru doped YbCrO3” which was published in the journal titled “ Journal of Physics Condensed Matter” in the month of October 2016.
3. **Others**:
	* 1. Pratibha Pai:
			+ Appointed as Chief Election Officer(CEO) for the elections held for Local Managing Committee(LMC) of the college from 18th November 2016 to 5th December 2016.
		2. Vinod Menon:
			+ Visiting Faculty for M.Sc. Sem III and IV at Post graduate centers: D.G.Ruparel College, Matunga and B. N. Bandodkar College, Thane.
			+ Appointed a member of University Syllabus revision committee for SYBSc
		3. Kiran Nabar
			+ Visiting Faculty for M.Sc.Sem III and IV at Post graduate cetntres: D.G.Ruparel College, Matunga and B. N. Bandodkar College, Thane.
			+ Attended the one day workshop on “Leadership Interaction Programme” held at SIES college(Nerul) on 7th October 2016.
		4. Swapnil Jawkar
			+ Delivered a guest lecture titled “Physics in Astronomy” at Nehru Planetarium as part of Certificate course in astronomy by Extra mural studies, University of Mumbai on 28th August 2016
			+ Delivered a guest lecture titled “Physics in Astronomy” at Nehru Planetarium as part of Certificate course in astronomy by Extra mural studies, University of Mumbai on 28th August 2016
			+ Visiting Faculty for M.Sc.Sem IV at Post graduate centre: D.G.Ruparel College, Matunga
			+ Was Team leader of the Indian Team that represented India at the Xth International Olympiad of Astronomy and Astrophysics 2016 held at Bhubaneshwar India. The team won 2 Golds, 4 Silvers and 2 Bronze medals. In addition to that India also bagged 3 special performance medals, Best Theory, Best Observation and Best Overall.
			+ Participated in INAO 2017 Paper Correction Camp organized on 5th February 2017.
		5. Dr. Sonali Ambardekar
			+ Participated in the one-day workshop on revised syllabus in F. Y. B.Sc. Physics, both theory and Practical Course implemented from the year 2016-2017,conducted by Physics Department, D. G. Ruparel College in collaboration with Board of Studies in Physics, on 5th July 2016. The main focus of the workshop was to understand the depth and breadth of the topics newly introduced for the first time.
		6. Dr. Aarti Mulye
			+ Completed Orientation Program organized by HRDC RTM Nagpur University Nagpur from 22/06/2017 to 19/07/2016.
			+ Completed Minor Research Project “Nano Phosphor for Solar Energy Conversion”
			+ Recognition as a Care Taker Officer of SIES NCC Girls Unit.
			+ Guest lecture on “Tatva Shastra”, in the Light of Vedas organized by Philosophy Department SIES, Mumbai on 9th Jan 2017.
			+ Delivered a Keynote Address on “Photoluminescence in various phases of Cerrousulphate” at the International Conference on Functional Materials (ICFM-2017) organized by the Department of Physics, SCSVMV University, Kanchipuram, India on 2nd and 3rd of March 2017.
		7. Anand Ambardekar
			+ Participated in the one-day workshop on revised syllabus in S. Y. B.Sc. Physics Practical Course conducted by Physics Department, D. G. Ruparel College, on 10th June 2016. The main focus of the workshop was to discuss the newly introduced experiments.
			+ Registered for PhD
		8. Dr. Vishal dev Ashok
			+ Participated in the one-day workshop on revised syllabus in S. Y. B.Sc. Physics Practical Course conducted by Physics Department, D. G. Ruparel College, on 10th June 2016.
			The main focus of the workshop was to discuss the newly introduced experiments.
			+ University Minor Research proposal sent with Dr. Vishal Dev Ashok as co-investigator and Mr. Mahesh Falake as Principal investigator.
			+ Participated in the International workshop titled “ Nanotechnology: Insights into properties of materials from Computational Modeling Methods” organized by Guru Jambheshwar University of Science and Technology, Hisar(Haryana) under Global Initiative of Academic Network(GIAN)from Ministry of Human Resource Development, Govt.of India from 16th (Sunday)October 2016 to 20th October 2016.
			+ Appointed by Principal Dr. Uma Shankar as Coordinator of Avishkar- Mumbai University research meet during the Zonal round held on 19th December 2016 at SIES College of Commerce and Economics, Sion(East).
			+ Attended one day seminar on “Energy Conservation and Sustainability” organized by Institute of Environment Management at SIES Nerul campus on 20th December 2016.
			+ Participated in INAO 2017 Paper Correction Camp organized on 5th February 2017.
		9. Mahesh Falake
			+ Participated in the one-day workshop on revised syllabus in F. Y. B.Sc. Physics, both theory and Practical Course implemented from the year 2016-2017,conducted by Physics Department, D. G. Ruparel College in collaboration with Board of Studies in Physics, on 5th July 2016. The main focus of the workshop was to understand the depth and breadth of the topics newly introduced for the first time.
			+ University Minor Research proposal sent with Principal investigator and Dr. Vishal Dev Ashok as co-investigator
			+ Participated in the short term course on “ Recent Advances in Microfluidics, Biochemical and SAW sensors for Human Healthcare” conducted by University Department of Physics under Global Initiative of Academic Network(GIAN), MHRD, Govt. of India from 19th October 2016 to 25th October 2016.
		10. Seema Jadhav
			+ Participated in workshop titled “Plasma Processing of Materials” organised by department of Physics, Institute of Chemical Technology and conducted on 21st September 2016.
		11. Naziya Sultana Shaikh
			+ Participated in the three – day workshop titled ***Learning Electronics using Interactive Simulations*** organized on 19th, 20th and 21st July 2016 in association with Computer Science Department, SIES College and Department of Inter disciplinary program in Educational Technology, Indian Institute of Technology, Bombay.

**NON- TEACHING STAFF**

1. **Mr. Nilesh Sarfare(Lab assistant):** Participated in the Central Training Program cum workshop titled “ Happy Living and Self Development” conducted for the non teaching staff at SIES College of Commerce and Economics, Sion (East) on 28th July 2016. The resource person was Mr. Ashish Shah. Following areas were covered during the program:
* Understanding of self and identify unique qualities
* Understanding of Role versus Job and how to differentiate and practice
* Focus on development area –personal and professional
1. **Mr. Shankar Parab:** Attended the workshop on “ Disaster Management” organized on 27th August 2016 at Nerul campus. The resource person was Mr. Omkar Oniel working as State Disaster Management Professional at Disaster Management Unit, Maharashtra.
2. **Mr. Vikas Madane:** Attended the workshop on “ Disaster Management” organized on 27th August 2016 at Nerul campus. The resource person was Mr. Omkar Oniel working as State Disaster Management Professional at Disaster Management Unit, Maharashtra.