



# Bhavan's Vivekananda College

of Science, Humanities & Commerce  
Autonomous College - Affiliated to Osmania University  
Accredited with 'A' grade by NAAC  
Sainikpuri, Secunderabad - 500094



NAAC RE-ACCREDITATION - 2ND CYCLE

Criterion VI: -  
Governance,  
Leadership and  
Management

6.5.3  
Collaborative Quality  
Initiatives  
2017-18

*Submitted to*

**National Assessment and Accreditation Council**



# Bhavan's Vivekananda College

Of Science, Humanities, and Commerce

Sainikpuri, Secunderabad – 500 094

*(Autonomous College – Accredited with 'A' Grade by NAAC)*

*Cordially invites you to*

## **Regional RBPT Workshop in Research-Based Pedagogical Tools**

Organized by  
IISER, Pune  
Department of Microbiology

Inauguration  
Wednesday, 17<sup>th</sup> January, 2018, at 9 am  
Venue: MBA Seminar Hall

Chief Guest  
**Vice Chairman Air Commodore (Retd.) JLN Sastry (VSM)**

*Funded by*  
Department of Science and Technology  
Ministry of Human Resource Development


*Knowledge Partners*  
**British Council**

Newton Bhabha Fund  
Program

- ❖ Lighting of lamp
- ❖ Prayer
- ❖ Welcome Address by Principal, Prof. Y. Ashok,
- ❖ Address by Vice Chairman Air Commodore (Retd.) JLN Sastry  
(VSM)
- ❖ Message by Ms. Prachi Pasalkar, IISER, Pune
- ❖ Message by Dr. K. Anuradha, Local Organizer

Three Day - RBPT Workshop January 17-19 , 2018

A 3-day Regional RBPT (Research-Based Pedagogical Tools) workshop for UG and PG Science College Teachers of Telangana and surrounding areas was inaugurated on 17th January , 2018 at Bhavan's Vivekananda College, Sainikpuri. The workshop was co-hosted by COESME (Center of Excellence for Science and Mathematics Education) of Indian Institute of Science Education and Research (IISER) Pune and Bhavan's Vivekananda College. The workshop is funded by MHRD and DST (Department of Science and Technology), Government of India. The Newton Bhabha Fund of British Council is a knowledge partner of the workshop. Around 70 teachers of Chemistry, Life Sciences, Mathematics and Physics registered for the workshop. The chief guest, Air Commander (Retd). J L N Sastry, Vice-Chairman, BVB, and the Principal, Prof. Y. Ashok inaugurated the workshop. In their message to the participants, they advised the participants to use their skills to train and inspire the students to become resourceful scientists capable of solving practical problems. Ms. Prachi Pasalkar, representative of IISER, explained that this was the 12th Regional Workshop of this series. The workshop has five subject facilitators who have been trained by experts from the Sheffield Hallam University ,UK. They will conduct hands-on activities to impart skills of developing Research-Based lesson plans for teaching the students. This novel method of teaching will benefit our students by inculcating logical thinking and problem-solving.

  
Dr. K. Anuradha.

**Head of the Department**  
Department of Microbiology  
Bharatiya Vidya Bhavan's Vivekananda College  
Sainikpuri, Secunderabad - 500 094.





Bharatiya Vidya  
**Bhavan**

(Founded in 1938 by Kulapati Dr. K.M. Munshi)

# **BHAVAN'S VIVEKANANDA COLLEGE** of Science, Humanities & Commerce

Estd: 1993 AFFILIATED TO OSMANIA UNIVERSITY  
AUTONOMOUS COLLEGE

ACCREDITED WITH "A" GRADE BY NAAC

SAINIKPURI, SECUNDERABAD - 500 094. Ph : 27111611, 27115878

Date 13.9.17

Dear Dr. Barve,

We would like to conduct a Regional RBPT Workshop at our college, Bhavan's Vivekananda College of Science, Humanities, and Commerce, in January 2018. We were established in 1993 and are affiliated to Osmania University, Hyderabad. We are an autonomous college accredited with 'A' grade by NAAC.

Over the past 24 years, the Department of Microbiology has organized ...2 national and 17 local seminars, 1... symposia, and ...6 workshops. Other departments in our college have organized ...8 in 2016 and 2017 (to date). Our college has good facilities for holding lectures, poster-sessions, and in hospitality for participants.

At present, our department has a strength 8 staff members and 2 technical assistants. We have personal contacts with the staff of several local and non-local colleges and universities. Some of our contacts are: Affiliated colleges of Osmania university, Kakatiya University, Palamuru university, Mahatma Gandhi university and JNTU Hyderabad.

We will contact these professors and lecturers via email and phone. We are confident that we can enroll 70 participants for our proposed workshop in January.

Looking forward to working with COSME to organize this workshop,

Sincerely,

(Dr. K. Anuradha).

**Hood of the Department**  
**Department of Microbiology**  
Bharatiya Vidya Bhavan's Vivekananda College  
Sainikpuri, Secunderabad - 500 094.

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## REPORT

### **A S Rao Awards Council workshop**

04/06/2017

We Mrs.T Sai Santoshi and Dr.GSVRK Choudary faculty members from Department of Physics and Electronics, Bhavan's Vivekananda college, Sainikpuri submit the following report on 19<sup>th</sup> Residential Science Workshop organised by **Dr. A.S Rao Awards Council** from **28<sup>th</sup> April to 3<sup>rd</sup> May 2017** at VIKAS Concept school.

The Aim of the Workshop was to inculcate the experimental skills coupled with analysing ability and understand the concepts of Basic Sciences at young age. The students are also exposed to lectures given by eminent personalities working in Basic Sciences. The students of 9<sup>th</sup> class from various schools in Telangana and Andhra Pradesh were selected through talent search examinations and were invited for the residential workshop. A total of 57 students (35 from private schools and 20 from government school) were divided into four groups. One group of 16 students were allotted to us to carry out projects in Physics,

We along with the help of 4 students (Mr M. Nikhil, Ms V. Vaishnavi, Ms.Manasa Usha, Ms.G.S. Meghana) from MPCs III yr and 2 students (Mr.Vishal and Ms.Nikhita) ) from MECs III yr have successfully completed the task assigned to us.

This the first time the students from our college participated in this Workshop which gave them a good experience.

The Department of Physics and Electronics has also supported the council with necessary equipment for carrying out the science projects in Physics.

We thank the Management of Bhavans Vivekananda College and Dr.A.S. Rao Awards Council for giving us this opportunity to interact with young minds.

  
Dr G SV R K Choudary

Department of Physics and Electronic



## Activities 2017-18:

### Free Health Camp

The Department of Biochemistry organized a free health check-up for staff and students of the college in collaboration with **Apollo Hospitals Enterprise Ltd on 17th Feb, 2018**. The camp included the free services of checking blood pressure, random blood sugar, ECG and free consultations from the doctors of various specializations like Gynaecology, Pulmonology, Orthopaedic, Dermatology, Dental, Nutrition and diet planning. About 120 staff members and 171 students availed these free services. The camp was well received and got appreciated by the staff and students for having multi-speciality services at one place.



## FIELD VISIT TO BIOCON Ltd

The students of first and final year M.Sc Biochemistry were taken on a field visit to Biocon Ltd, Pashamylaram, Patancheru, Hyderabad, on 12th Feb, 2018. The students were briefed about Good manufacturing practices (GMP) and Good laboratory practices (GLP) and various job opportunities available for life science students in various departments of an industry. Later they were shown analytical chemistry division and working principles of HPLC, GC, Polarimeter, Fourier transform spectroscopy, Coulometer, Particle size instrument, Muffle furnace, Ultra pressure liquid chromatography (UPLC). The staff explained patiently about all these instruments and students have interacted with them and found the visit very useful.



## FIELD VISIT TO INDIAN IMMUNOLOGICALS

The students of first and final year M.Sc Biochemistry were taken on a field visit to Indian Immunologicals, Gachibowli, Hyderabad, on 7th February, 2018. Indian Immunologicals, a subsidiary of National Dairy Development Board, is an organization involved in the production of both human and animal vaccines. Dr. Surya Prasad, scientist at Indian Immunologicals briefed the students about role of organization in improving milk production by the cattle in the country as part of the "Operation Flood programme". He explained students the wide range of vaccines like RAKSHA brand of vaccines for cattle and other livestock and ABHAYA brand of vaccines for

humans, made by Indian Immunologicals. He also explained its contribution to society by providing vaccines at subsidized prices to farmers. The students were shown different facilities available at the plant like cold storage facilities including the  $-80^{\circ}\text{C}$  and  $4^{\circ}\text{C}$ , viral culture lab and fermenters. Students were made aware of significance of quality control and quality assurance measures need to be taken to ensure the quality of vaccines. The students have interacted with staff and got clarified of their doubts. The students and staff found the visit informative and beneficial.



## Workshop on cytogenetics 20th & 21st January, 2018

The Department of Biochemistry has organized a workshop in "Cytogenetics" for M.ScBiochemistry students in collaboration with Kamineni Life Sciences Pvt Ltd, Moula-Ali, Hyderabad on 20th and 21st, January, 2018. The workshop started with an introductory lecture on cytogenetics by Dr. Poornima, HoD, Dept. of cytogenetics, Kamineni Life Sciences Pvt Ltd and she explained the technique and significance of karyotyping in identifying genetic abnormalities and birth defects. The training session included culturing of blood cells, preparation of slides for observation of metaphase chromosomes and demonstration of technique of screening and imaging of chromosomes using spectral imaging software. They were also explained the patterns of unbanded and banded chromosomes for karyotyping and its analysis. Dr. Annie Hasan, Geneticist, of the Institute delivered a lecture on "Utility of Cytogenetics and FISH in current day health care". She also motivated students to choose wide opportunities available in life

sciences. The workshop provided a good opportunity for students to gain hands on training in karyotyping of chromosomes.



## Report on visit to Vijaya Diagnostics at Himayat Nagar 22.03.2017

Students of M.Sc Biochemistry semester IV were taken to Vijaya Diagnostics at Himayat Nagar, Hyderabad on 22.03.2017. Students were made aware of high level of automation involved in the diagnostic centers. Starting from the collection of the



samples, storage, processing and reporting the data involves a high degree of automation. Students were shown biochemistry, microbiology, hematology, histopathology, molecular Biology and cytogenetics labs. They were explained about the working mechanism of various instruments like autoanalyzers, electrolyte analyzers, blood grouping instruments, HPLC, PCR, FISH and pathology related instruments. Overall the visit had provided a very good insight into the clinical laboratory diagnostic labs.

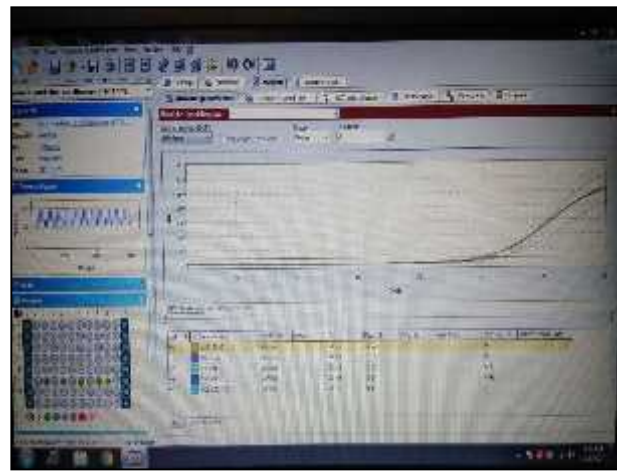
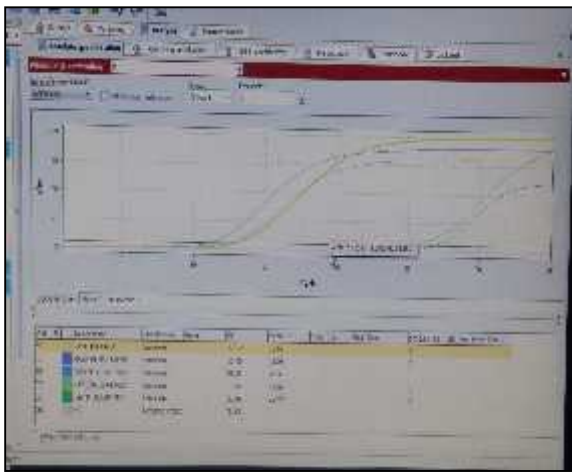


## WORKSHOP AT GMERF

(7<sup>th</sup> to 9<sup>th</sup> December, 2017)

The department has organized a 3-day workshop for M.Sc Biochemistry students on **“Molecular Diagnosis of Methicillin Resistant *S.aureus* (MRSA) by multiplex Polymerase Chain Reaction (PCR) and Real Time PCR”**, in collaboration with Global Medical Education and Research Foundation (GMERF), Global Hospitals, Hyderabad. The students were given hands-on training in isolation of DNA from *S.aureus* (MRSA) cultures by both conventional and kit methods. Further *mecA* and *nuc* genes were amplified by multiplex polymerase chain reaction (PCR) in conventional and real time methods. The products were analysed and found to show good amplification. At the end of the workshop, the students were given a test to assess their understanding of the procedures learnt in the workshop.





## Health Camp

12<sup>th</sup> and 13<sup>th</sup> September, 2017

A Health camp was conducted by the Department of Biochemistry on 12<sup>th</sup> and 13<sup>th</sup> of September, 2017 for the staff and students of Bhavan's Vivekananda College. The camp was organized in association with **Vimta labs**. As a part of the camp various blood parameters like glucose, lipid profile, liver profile, kidney profile, complete blood count, thyroid profile, vitamin D and vitamin B12, were investigated. Complete health checkup panel, Master health checkup panel and Extended health checkup panel were included in the list of tests done. About 33 staff members and 43 students got their tests done for various panel of tests. The health camp was successful in helping the staff and students to monitor their health status and make necessary corrections in terms of diet or clinical help from a doctor.





## Educational Trip to CFTRI

The students of M.Sc Biochemistry III semester were taken on an educational trip to CFTRI, Mysore from 5th to 9th of Sept, 2017. On 7th Sept, 2017 the students visited the departments of protein chemistry and biochemistry and saw a showcase of CFTRI. Prof. Rajagopal, Principal scientist and Dr. Ramprasad T R, scientist department of biochemistry spoke to the students regarding the future prospects in biochemistry and research.

activities of the organization. The students were also shown various instruments like HPLC, PCR. The students also visited the food analysis lab where they were explained about the techniques employed by CFTRI in food fortification. The students also visited the animal house facility.



## Visit to CFRD

In an attempt to motivate the students of life sciences towards research, the M.Bi.C 3rd year students were taken to Central Facilities for Research & Development (CFRD), Osmania University on 17-8-2017. The students were shown different instruments like HPLC, Confocal Microscope, Nuclear Magnetic Resonance (NMR), Fourier Transform Infrared (FTIR) Spectroscopic Gas Analyser, Biofermentor for ethanol production, Mass spectrometer, Real-Time PCR, Matrix-assisted laser desorption/ionization time-of-flight (MALDI-TOF) and Lyophilizer etc. They were made aware of the working of different instruments and their applications in various fields of research. This visit has



given the students an opportunity to understand the subject and research activities associated.



## REPORT

Students of B.Sc II year M.Bi.C have attended CSIR – CCMB Open day which is celebrating its 75<sup>th</sup> year of "CSIR touching lives". We reported at 11:30 am near CCMB gate. We have been allotted with a guide by name Mr. Satyajeeth Salunkhe.

Initially we were taken to explore the Campus and were facilities available. We were explained about the principles of important instruments like Electron microscope, liquid chromatographic chambers, high performance liquid chromatographic chambers, spectroscopy labs, protein analysing equipment.

Exhibits and posters related to popular topics in modern microbiology like Bug station where it explained about the 65% similarities in genetic information of humans and drosophila, Zebra fish, Samba masuri rice, Liquid nitrogen etc. Facts of biological world.

A short video related to Conservation genetics and wild life and forensic science were shown.

It was a great experience visiting the CCMB open day. It was very informative and inspiring also and got motivated. It was an experience for us which gave a focus to choose our area of research.

*[Signature]*  
Head, Dept. of Bio Chemistry  
Bhavan's Vivekananda College  
Sainikpuri, Secunderabad-500 094

## Visit to VIMTA Labs

The students of M.Sc Biochemistry were taken to **VIMTA Labs on 1-8-2017** to provide advanced practical exposure for their Skill enhancement course (SEC) in Clinical Laboratory Diagnostics. They were shown procedures of sample collection, sorting and labelling. They were taken to different labs which perform analysis of routine biochemical parameters, hormone assays by chemiluminiscence methods, cytology and histopathology samples. They were made aware about the high level of automation that takes place in diagnostic labs. This visit has given the students a better understanding of the course.



## Outreach programme

The department of Biochemistry organized an outreach program as a continuous practice at Zilla Parishad High School for girls, Alwal on 28th and 29th of June, 2017. The purpose of the programme was to encourage the young minds to develop interest towards life sciences and consider it as a future career option.

The graduate and postgraduate students of Biochemistry participated in the program with enthusiasm. Students displayed and explained models and charts related to life sciences. They also demonstrated many science experiments like osmosis, photosynthesis, vitamin C activity, dialysis, fermentation and lung capacity determination. Blood group determination was done for 87 students and Body Mass Index (BMI) was calculated for 218 students. The programme received good appreciation from the students and staff of the school.



## Pepsi co industry visit

**20<sup>th</sup> December, 2017**- The day and place was set after a sudden industrial visit that Bhavans Vivekananda Degree College had initiated for BBA 3<sup>rd</sup> year students, with the help of few students. The prior permissions and transportation arrangements were made. The start of the trip began at 9:30 from the college premises where 54 of us along with 2 teacher professors had collectively gathered for a 2 hour bus ride to Sangareddy district on the outskirts of Hyderabad, where the pepsi co plant was located.

Being the fun loving college going passing out batch, the ride was undoubtedly filled with students singing, dancing and capturing those moments. Around 11:40 we reached the plant site where we were guided by one of their on-site officer to take us to the processing unit. On reaching the unit, we were given safety equipment to wear and were briefed about the general safety procedures at pepsi co.

The site in-charge manager, told us about the division of work and how the processing is carried out to get the final bottles of soft drink that we finally consume. The processing unit is divided into 2 parts, in first one the plastic can bottles are made, which are then sent forward to be filled by the carbonated drinks, and it goes to next stage where they are capped, placed, packed, sealed and ready to go. He also said that in 1 min, 60 bottles are manufactured.

Completely managed and handled by technology and machines, fast moving conveyer belts, back and forth producing the drink that is relished by every age group, the complex processing seemed perfectly simple. Quality standards set, safety mechanism followed, targets set and over-looking human resources employed to see it all work smoothly, a sight that we saw for the first time.

After the over-look at the factory site, a mandatory group picture was clicked and we headed towards filling our empty stomach with dhaba food and an even more enthusiastic power of enjoyment was witnessed till we got back to the college.

A fruitful industrial visit is all that were our last words at the end of the day.



## Pepsi co industry visit

21<sup>th</sup> February 2018- The day and place was set after a sudden industrial visit that Bhavans Vivekananda Degree College had initiated for MBA 2nd year students, with the help of few students. The prior permissions and transportation arrangements were made. The start of the trip began at 9:30 from the college premises where 102 of us along with 2 teacher professors had collectively gathered for a 2 hour bus ride to Sangareddy district on the outskirts of Hyderabad, where the pepsi co plant was located.

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