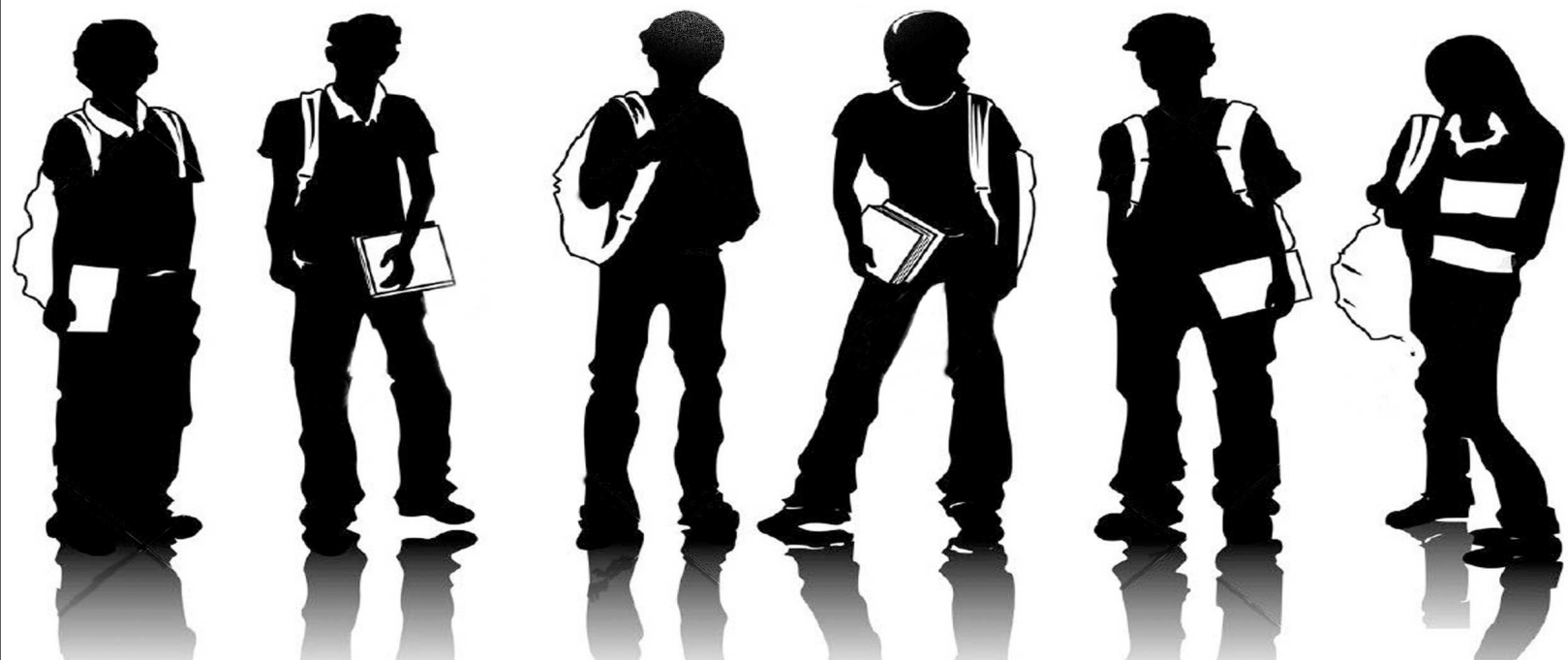


VPM's B. N. Bandodkar College of Science, Thane



# संयुजा

२०१७-१८





# VPM'S B.N. BANDODKAR SCIENCE COLLEGE

NAAC RE-ACCREDITED "A" GRADE







Vidya Prasarak Mandal's  
**B. N. Bandodkar College of Science, Thane**  
NAAC RE-ACCREDITED 'A' GRADE

# **SANYUJA 2017-18**

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# Editorial



It gives us immense joy and satisfaction to present unique creation in the form of our very own annual college magazine “Sanyuja”. The essential purpose of Sanyuja is to inform, engage, inspire and entertain a diverse readership- including alumni, faculty, staff and students by presenting an intimate, timely and honest portrait of the College, its people, its programs, its dynamism and its mission. It serves as a platform to highlight the educational, cultural and sports activities, literary and artistic segment along with scientific thoughts.

Just like the Gods and the Asuras churned the ocean of milk to extract the nectar, we have tried to churn out creativity from this complexity of science and formed a bridge between flowing thoughts and artistic magnification. We experienced a big response especially for designing a cover page of magazine. To appreciate the enthusiasm, we have placed selected posters in the magazine. From this year, we have also decided to add at least one alumni interview by our students. The magazine continues to expand its reach to achieve its vision of being a truly representative student publication.

In the originality of its conception, in the excellence of its writing, visual presentation and in its commitment to accuracy, healthy discourse and editorial balance, the magazine endeavors to reflect the values and the quality of the institution itself.

By maintaining the respect and interest of its readers, the magazine aspires ultimately to inform their opinion of the College and to strengthen their commitment to its welfare.

**Dr. Ujjwala B. Gokhe**

Co-ordinator Magazine Committee



# Principal's Desk



२०१७ / २०१८ हे शैक्षणिक वर्ष मुंबई विद्यापीठाच्या कारकिर्दीत वादळाचे ठरले. नवी परीक्षा पद्धती, निकाल वेळेवर न लागणे, चुकीचे लागणे, कुलगुरूंना पायउतार व्हावे लागणे. सर्वच प्रभारी अधिकारी कार्यरत असूनही यातून अजूनही आपण बाहेर पडलो नाही. यात विद्यार्थी वर्गाचे बरेच नुकसान झाले व आमच्या सारख्या शिक्षण क्षेत्रातील कार्यरत व्यक्तींना त्याची खंतही लागून राहिली.

बदल तर नक्कीच आवश्यक आहेत. किंबहुना बदलांशिवाय सुधारणा होणार नाहीत. नवीन जग घडणारच नाही. पण बदल घडवून आणताना हे बदल पेलणारी, पचवणारी, कार्यकुशल मंडळी घडवणे आवश्यक आहे. फक्त बंद खोलीत चर्चा करून बदल घडवण्याचे निर्णय घेताना हे बदल प्रत्यक्षात उतरवणारा कार्यकुशल कर्मचारी वर्ग जर नसेल तर काय होऊ शकते हे या वरून दिसून येते.

'Skill India' चा नुसता नारा देउन उपयोग नाही तर कुठल्याही संपूर्ण प्रणालीतील प्रत्येक कर्मचारी वर्ग त्याच्या स्वतःच्या कामात वाकबगार बनणे / बनवणे आवश्यक आहे. याकरिता इंग्रजीत म्हणतात 'Reach to Grass Root level'. नाहीतर हे बदल प्रत्यक्षात उतरू शकत नाहीत किंवा चुकीचे ठरू शकतात.

शैक्षणिक संस्थापुढे म्हणूनच हे मोठे आव्हान आहे की कार्यकुशल पिढी घडवणे. पण आपल्या सध्याच्या शिक्षण पद्धतीमध्ये हे शक्य नाही. याकरिता अभ्यासक्रमांमध्ये अमुलाग्र बदल घडवून आणणे आवश्यक आहे. परंतु याकरिता होणारे प्रयत्न खुपच तोकडे पडत आहेत.

मग यावर उपाय काय ?

याकरिता विद्यार्थी आणि मुख्यत्वे पालकांनी हे समजून घेणे आवश्यक आहे की महाविद्यालयांमध्ये असलेले अभ्यासक्रम पदवी मिळण्याकरता शिकायलाच लागतील. पण त्याबरोबरच नोकरीमध्ये यशस्वी होण्याकरिता लागणारे कार्यकौशल्य आत्मसात करणेही तेवढेच महात्वाचे आहे.

सध्या उपलब्ध असलेल्या तंत्रज्ञानामुळे अखेरीस जग हाताच्या बोटांजवळ आले आहे. परंतु यातील कुठले ज्ञान आपल्याला उपयोगी पडेल कुठला मार्ग आपण निवडावा व त्याकरता कुठली कौशल्ये आत्मसात करावी या बाबतीत मात्र फारच थोडी तरुण पिढी किंवा पालक विचार करताना दिसतात. आधी परीक्षा देऊ, पास होऊ. मग बघूया छोटया छोटया गोष्टींकडे. असाच विचार बऱ्याच जणांकडे दिसतो. आपल्याला नोकरीमध्ये लागणारे संभाषण चातुर्य, भाषेवरील प्रभुत्व, सभाधिपणा, विचार करण्याची क्षमता, हजरजबाबीपणा, संगणकीय शान, लिखाण चातुर्य आणि अश्या कितीतरी गोष्टींना अजूनही आपण महत्त्व देताना दिसत नाही आणि त्यामुळेच अश्या सक्षम नसलेल्या कर्मचाऱ्यांवर जेव्हा अमुलाग्र बदल लादला जातो, तेव्हा हे कर्मचारी या बदलाला सामोरे जायला अपुरे पडतात.

म्हणूनच मला असे वाटते की 'Skill India' मध्ये आपल्या अभ्यासक्रमात बदल होताना पुढील जीवनास आवश्यक अशी ही कार्यकुशलता त्यामध्ये समविष्ट व्हावी व पालकांनी आपला पाल्य ही कार्यकुशलता आत्मसात करतो की नाही हे सजगतेने पहावे.

डॉ. सौ. माधुरी पेजावर

प्राचार्या



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## International Conference

**“Multidisciplinary International Conference on Green Earth: A Panoramic View”**

**12<sup>th</sup> to 13<sup>th</sup> January 2018**

Since time immemorial, our planet Earth has surprised us by its astounding powers to nurture all living forms. Our green planet has unique support system of atmosphere, gravitational force, magnetic field, water, soil etc. Probably mankind is the most advanced creation of Mother Nature that exists on Earth but today there are alarming signals to save green Earth from human greed. With respect to this context, **Department of Botany of Vidya Prasarak Mandal's B. N. Bandodkar College of Science, Thane** had organized **“Multidisciplinary International Conference on Green Earth: A Panoramic View”** on **12<sup>th</sup> to 13<sup>th</sup> January 2018** in collaboration with **Birbal Sahni Institute of Palaeosciences, Lucknow (BSIP)** and **Bombay Natural History Society, Mumbai (BNHS)** and supported by **Council of Scientific and Industrial Research, New Delhi (CSIR)**.

Prior to International Conference, Dept. of Botany organized Logo Competition and two Preconference Workshops on 10<sup>th</sup> July 2017 and 11<sup>th</sup> December 2017. Generally a logo serves as the central element which is essential to aid and promote instant public recognition. In order to fulfill this purpose, a **Logo Competition** was conducted in month of June. Total 118 students participated in this competition. The creative logos were judged by an external Judge Dr. Manoj Kumavat. He is M.D. in Alternative Medicines and a member of Bombay Art Society. He selected the best logo on the basis of different parameters such as, originality, colour scheme and overall presentation. The logo of **Ms. Monal Chitnis (7<sup>th</sup> Std, Shreerang Vidyalaya, Thane)** selected as Winner logo and used for brochures, proceeding and certificates of the preconference workshop and International Conference.

The two days conference was attended by 550 participants from academics, Industries, Research Institutes from various states of India (Maharashtra, Gujarat, West Bengal & Goa). Eminent Speakers from India, Mauritius, Malaysia and Nepal mesmerized all audience by their research work and contribution towards science and in turn to the society.

Inauguration of the Conference began with offering garland to statue of our beloved Late Dr. V. N. Bedekar; Founder of VPM. **Chief Guest Hon'ble Dr. Vijay Bedekar** (Chief Patron & Chairman of Vidya Prasarak Mandal), **Dr. Sunil Bajpai (Director of BSIP)**, **Padma Shri Jadav Peyang (Forest Man of India, Jorhat, Aasam)**, **Dr. (Mrs.) M. K. Pejaver** (Convener and Principal), **Prof. Venkatraman** (Vice-Principal) and **Dr. Moitreyee Saha** (Organizing Secretary) had grace Inauguration Function. In the beginning **Dr. (Mrs.) M. K. Pejaver** welcomed all the delegates and narrated about the conceptualization of conference. Later **Dr. Moitreyee Saha** briefed about the various Themes of Conference. The proceeding of International Conference was inaugurated by **Chief Guest Dr. Vijay Bedekar, Dr. Sunil Bajpai and Padma Shri Jadav Peyang**. It was inclusive of 10 invited talks and the imperative research in form of 65 research papers received from different parts of India.

**Chief Guest Dr. Vijay Bedekar's** address focused on living a better life by following nature friendly ways such as minimizing use of plastic, pesticides, antibiotics, cosmetics, etc. He emphasized on avoiding the overall GDP game plan which may tarnish Mother Earth's valuable resources. Vote of thanks was proposed by **Dr. Vinod Jamdhade**.

The two day conference was conducted in eight technical sessions.

On 12<sup>th</sup> of January, 2018 the technical session I included two invited talks. This session was chaired by **Dr. S. N. Malode** (Associate Professor and Head, PG Dept. of Botany, Govt. Vidharbha Institute of Science and Humanities, Amravati, Maharashtra).

The 1<sup>st</sup> invited talk was delivered by **Dr. Sunil Bajpai** (Director, Birbal Sahni Institute of Palaeosciences, Lucknow) on topic of "**Birbal Sahni Institute of Palaeosciences, Lucknow: A Window Into Past Life, Ecosystems And Climates**". He Introduced "OUT OF INDIA" hypothesis that present is key to past, and past holds key to the future. He highlighted Indian geological history with the help of fossils and their applications. The audience appreciated his presentation which depicted the various photographs of rare fossils.

**Padma Shri Jadav Peyang's** delivered 2<sup>nd</sup> invited talk on "**Forest and Climate Change**" where he mentioned about his tribe "**Mishing community**" and his journey. He stated how at a very young age he was moved by the plight of the barren land and dying animals and in turned started working towards declining forest areas and wetlands near his home. At first he decided to approach his village men, but that fell on deaf ears. Finally he started single handed on the project. He shared his experience and hardship faced while building the forest by planting few saplings every day for three decades, now called as "**Molai Forest**". This forest covers about **1360 acres** of land which gave shelter to diverse flora and fauna. He ended his talk by stressing on role of government agencies towards education policies to motivate young minds towards tree plantation on a larger scale. He appealed students that if they truly adore him as their idol then they should follow his example to work together towards building a better greener nation.

The technical session II included two invited talks. This session was chaired by **Dr. Bindu Gopalkrishnan** (Assistant Professor Dept. of Botany, Mithibai College, Mumbai, Maharashtra).

In this session, **Dr. SVC Kameswara Rao** (General Manager, RRSC-CENTRAL, NRSC/ISRO, Nagpur) narrated topic of "**Indian Space Programme & Geo-Spatial Technologies Applications for a Greener Earth with Special Reference to Soil Resources**". He elaborated on applications of Indian Space Program and information generated through remote sensing satellites that helps to generate important data in agriculture and in monitoring and management environmental changes. He showed the actual images of vegetation which helps in prediction of total yield of crop plants. He declared the news of successful launching of satellite by ISRO which took place on same day. This news received a big round of applause and appreciation for Indian space scientists from audience.



The second speaker, **Dr. Rajesh Mehrotra** (Associate Professor, BITS Pilani, Rajasthan) discussed “**Genomic Analysis of Cis Regulatory Elements And Its Experimental Validation In Model Plant *Arabidopsis Thaliana* Reveals Spacer Distance Between ACGT Cis Regulatory Elements Governs Differential Gene Expression In Response To Salicylic and Abscissic Acids**”. He gave an overview of abscisic acid dependant and independent abiotic stress pathways along with molecular mechanisms of the same. He mentioned the application of the study in designing stress tolerant plants. The main highlight of the talk was *in silico* analysis of distribution pattern of ACGT elements, cloning of PP2C promoter and its detection. He also mentioned the negative effect of AAEA motif on GE of PP2C.

The technical session III was of Mini-oral presentations. This session was chaired by **Dr. Hj. Wan Mohtar Wan Yusoff** (Professor, School of Bioscience and Biotechnology, Faculty of Science and Technology, The National University of Malaysia, Malaysia) and the rapporteur was **Dr. Sashikumar Menon** (Asst. Director & Associate Professor, Pharma Analytical Sciences, KAUSHAL Kendra, Mumbai, Maharashtra). There were total 9 Mini-oral presentations delivered by research scholars which were on the topic of Agricultural sciences, Bio-sciences, Biophysics and Enviro-Management. The session ended with valuable suggestions and comments gave by Dr. Wan Yusoff and Dr. Sashikumar Menon. They mentioned about the quality of research, use of visual aids, literature survey, body language and overall preasentation. The oral presentations were judged by two eminent scientists, viz., **Dr. Gaurav Sharma** (Scientist-D, Zoological Survey of India) and **Dr. Gita Shrestha Rajbhandari** (Associate Professor, Department of Botany, Amrit Campus Thamel, Kathmandi, Nepal)

The last session of the day was chaired by **Dr. Sharda Vaidya** (Associate Professor & recognized Research Guide, Dept. of Botany, CHM College, Mumbai, Maharashtra)

**Ms. Reshma Pitale** (Research Students, Bombay Natural History Society) represented on behalf of Dr. Deepak Apte (Director, BNHS, Mumbai). She delivered talk on “**Costal Ecosystem: New Chapter on Marine Conservation**” She explained exclusive activities undertaken by BNHS. She focused her talk on coastal life of Maharashtra which is a very diverse, complex Ecosystem that has scope to get explored more. She also threw light on conservation and management strategies which are getting hampered due to uncontrollable human activities.

The first day of conference ended with cultural programme in which various Indian forms of music and dance were beautifully expressed by talented students. The programme began by offering ‘Ganesh Vandana’ in form of classical dance. Dr. Ashwini Tilak presented melodious song which was followed by ‘Jugal Bandi’ of Harmonium and Tabala with a spark of Beat boxing. It ended with the documentary video depicting ‘Colourful Indian Festivals’ along with their religious and scientific background.

On 13<sup>th</sup> of January, 2018 the first technical session started with poster presentation. Total 55 posters were presented under different category of undergraduate, postgraduate,

PhD and teacher's category. Papers were presented under the themes of Agricultural sciences, Bio-sciences, Biophysics, Green Chemistry and Enviro-Management. There were 10 prize winning posters under different category.

The second session of the day was chaired by **Ms. Rucha Khadake** (Assistant Professor, Dept. of Biochemistry, VPM's B. N. Bandodkar College of Thane, Maharashtra). It included only one invited talk.

**Dr. S. S. Hameed** (SCIENTIST- 'C', AJC Bose Indian Botanic Garden, Botanical Survey of India (BSI), Howrah.) gave talk on **"The Role of Botanic Gardens In Plant Conservation: A Special Reference To A JC Bose Indian Botanic Garden, Howrah"** He initiated the talk by giving insights of objectives and areas of BSI functions. He elaborated on *In-situ* Conservation strategies and potential of BSI in protecting medicinal, commercially important, endangered plant varieties.

The third session of the day was chaired by **Dr. Anita Goswami-Giri** (Associate Professor and Head, Dept. of Biochemistry, VPM's B. N. Bandodkar College of Thane, Maharashtra). It included two invited talks.

**Dr. Hj. Wan Mohtar Wan Yusoff** (Professor, School of Bioscience and Biotectnology, Faculty of Science and Technology, The National University of Malaysia, Malaysia) elaborated on topic of **"The integration of mind and hearts of human interactions in a cosmological construct for Green Earth."** He stressed on the role of man in cosmological construct explaining 'soul' as 'spiritual heart'. He mentioned that we should be exploring science for 'The truth' and not only for commercialization. He spoke about 'elements in managing the soul' that constitute the 'study of ethics'. He threw light on the summative outcome of mans efforts to maintain and sustain the perceived balances and in-balance of the interactions of all domains and components of outside as well as inside earth.

**Dr. Gaurav Sharma** (Scientist-D, Zoological Survey of India, High Altitude Regional Centre, Ministry of Environment, Himachal Pradesh) shared excellent piece of information on **"Studies on the Faunal diversity with s .r. t. Mammalian Diversity and their conservation in India"** He highlighted on the key role of ZSI in biodiversity conservation as India is recognized as one of the 17 mega diversity countries of the world with three biodiversity hot-spots.

The fourth session of the day was chaired by **Dr. Minakshi Gurav. (Assistant Prof. from Dept. of Botany, Ruparel College, Matunga).** It included two invited talks.

**Dr. Gita Shrestha Rajbhandari** (Associate Professor, Department of Botany, Amrit Campus Thamel, Kathmandi, Nepal) enlightened on **"Impact of Climate Change in Forest Diseases of Nepal."** She gave an overview of rich biodiversity in Nepal and the alarming situation of forest depletion due to various reasons including fires and human intervention. She spoke on effect of changing physical factors and their relation with micro-environment that invite new diseases of conifer forest and affect vegetation adversely.



**Dr. Rajen Suntoo** (Senior Lecturer in Sociology, University of Mauritius, Mauritius) spoke on “**Conservation and Consolidation of Green Earth: A Crucial Pillar for Livelihoods.**” He highlighted the social aspect to achieve green earth. He made the audience aware of the need for environmental impact assessment as well as ‘social impact assessment’ to make people realize the adverse effects of damage to the environment. He made all audience to introspect about their social responsibilities and sustainable environment. He stressed on implementation of plans rather than mere discussions on the problem. Giving examples of small measures like use of public transport and ban on plastic. He explained the important role of socialization to conserve environment.

The conference concluded with valedictory and award ceremony. It was graced by **Chief Guest Hon’ble Dr. Vijay Bedekar** (Chief Patron & Chairman of Vidya Prasarak Mandal), **Dr. (Mrs.) M. K. Pejaver** (Convener and Principal), **Prof. Venkatraman** (Vice-Principal) and **Dr. Moitreyee Saha** (Organizing Secretary). The summery of Two days conference was presented by **Dr. Kalpita Muley** (Co-ordinator, Dept. of Microbiology). Later representative delegates shared their excellent views and experiences about conference. In award ceremony, best oral presenters and poster presenters were felicitated by the hands of **Chief Guest Hon’ble Dr. Vijay Bedekar**. Hon’ble Dr. Vijay Bedekar addressed audience and gave his valuable concluding remarks. He appealed to each and every audience to introspect and bring changes in oneself without blaming the society. Such rational thinkers and responsible citizens can help in building a strong nation. The vote of thanks was proposed by **Dr. Moitreyee Saha**. When she mentioned about **Forest Man of India**, all the audience gave standing ovation to True Son of Mother Nature.

Through this International summit, the organizer presented a real life example of **Forest Man of India**. Each and every speaker of conference gave a novel insight to tackle challenging issues to make Earth a better home for us. The interactive discussions took place during the conference might have inspired many budding researcher. Some of them may follow footsteps of Forest Man of India to make greener India. Conference received positive feedback from all the aspects like quality research work, punctuality, hospitality and for such a splendid arrangement.

## SANYUJA 2017-18



**Dr. Moitreyee Saha**  
Organizing Secretary and Head,  
Dept. of Botany



## **International Conference 2017**

**Department of Biotechnology and Microbiology had organized International conference on 'Emerging Technologies for Sustainable Agriculture' on 6<sup>th</sup> and 7<sup>th</sup> January 2017. The conference was held at Thorle Bajirao Peshwe Sabhagruha, VPM Campus, Thane. Total 360 students and 53 faculty members from B. N. Bandodkar College of Science; and 27 participants from other institutions participated in the International Conference.**

The inaugural event that was compeered by Ms. Sayali Daptardar, Assistant Professor, Department of Biotechnology and Microbiology, began with national anthem depicted in a touching film describing farmers' condition in India with a ray of hope in terms of biotechnological advancements. The film was conceptualized by Dr. Kalpita Mulye, Organizing secretary, ICONTESA and prepared by Mr. Nikhil Pahelkar, T.Y.B.Sc. student, Department of Biotechnology and Microbiology. Ceremony began by 'DeepaPrajwalana' by the dignitaries and recitation of 'Saraswati Vandana' by Dr. Ashwini Tilak, Assistant Professor, Department of Biotechnology and Microbiology.

Convener of the conference, Honorable Principal Dr. (Mrs.) M. K. Pejaver, in her welcome address, explained the importance of pre-conference workshops for undergraduate students in terms of understanding research work at International level. She mentioned about the custom of B. N. Bandodkar College of Science to announce conference one year in advance.

Dr. Kalpita Mulye, Organizing Secretary of the conference, in her brief address, highlighted the importance of modern technology for improving the agricultural yield and support Indian farmer. She also gave overview of the focused curricular and co-curricular activities undertaken by the department throughout the year based on the theme of the conference.

In his Chief Patron's address, Dr. V. V. Bedekar, Chairman, VPM, stressed on the importance of 'sustainability in agriculture' with respect to Indian scenario. He discussed about overuse of chemical pesticides and fertilizers: a burning issue to be given a thought. He provoked the audience to think about 'The Problem of Plenty' that is leading to various health problems.

Chief Patrons address was followed by inauguration of the conference proceedings by Dr. Kai U. Totsche, Professor and Chair of Hydrogeology, Friedrich-Schiller-University, Jena, Germany. He delivered the key note address on the topic 'Biogeochemical Interfaces in Soil: Formation, Properties and Function'. His talk stressed on the role of the aggregate associated biogeochemical interfaces (BGI) for storage and turnover of water, elements, pollutants, and information. It also shed light on natural and artificial soils and studies on properties of BGI using spectro microscopic techniques.

The key-note address was followed by technical sessions. The first technical session was chaired by Dr. M. A. Deodhar, associate Professor, Vaze kelkar College, Mumbai, India; while Dr. Bela Nabar, Associate professor, CHM College Ulhasnagar, India, was the

rapporteur for the session.

The first invited talk during this session was by Dr. P. U. Krishnaraj, Professor and Head, Department of Agricultural Microbiology, College of Agriculture, University of Agricultural Sciences, Dharwad, India, who enlightened the gathering on 'Culturable Microbes and Metagenome of Plant Ecosystem for Sustainable Agriculture' and discussed various issues in order to attain sustainable agriculture. He elaborated on the concept of 'soil engineering' to enhance the microbial activity, and also highlighted on the development of valuable molecules using metagenomics tools with respect to global scenario.

The second invited talk was by Dr. Kavita Khadke, Warkem Biotech Pvt. Ltd., Mumbai, India. She spoke on topic 'Sustainable farming: Warkem Bioagri Solution for Sustainable Farming'. She highlighted various problems currently faced by farmers, and also gave detailed account of way out in the form of Portable Soil and Petiole Testing Kits, BioStimulant, BioFertilizers, BioPesticides, BioNematicides, Soil conditioners, Adjuvants, Agricultural Diagnostic kits, Insect attractants etc., developed by Warkem Biotech for sustainable agriculture.

Third speaker of the session, Dr. S. R. Torane, Deputy Director of Research and I/C PME cell, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth,, Dapoli, Maharashtra, India, enlightened the gathering on 'Role of Intellectual Property Rights (IPR) in Biotechnology'. Giving practical examples, he elaborated on different types of Intellectual Property Rights.

The second technical session of the conference was chaired by Dr. P. U. Krishnaraj, Professor and Head, University of Agricultural Sciences, Dharwad, India. Dr. Lolly Jain, Assistant Professor, K. J. Somaiya College of Science and Commerce, Mumbai, India, was the rapporteur for the session. Ms. Vanita Gadagkar, Assistant Professor, Department of Biotechnology and Microbiology, compeered the session. The oral presentations during the session were judged by Dr. Malali Gowda and Dr. Subhankar Roy Barman.

In his invited talk during the session, Dr. Subhankar Roy Barman, Associate Dean, Department of Biotechnology, National Institute of Technology, Durgapur, India, elaborated on 'Functional Analyses of G-Protein Coupled Receptors (GPCRS) in Rice Blast Fungus'. He explained his state of art work that involved elucidation of Conserved Fungal extracellular Domain (CFED) and use of bioinformatics tools for 3D structure determination. He also threw light on the assays to investigate co-localization of WISH protein using confocal scanning laser microscopy.

The next brain storming speech was by Dr. Sukesh Zamwar, CEO, Buldana Urban Credit Co-op Society, Maharashtra, India. He spoke on the topic 'Buldana Urban: Social Banking Model'. Taking example of Buldana urban, the largest co-operative credit society in Asia Pacific region, and recipient of the prestigious CUMI award and NCUI award, he explained the importance of the social banking model. He elucidated the role of three innovative strategies, namely, 'four pillar system', 'closed loop economic system' and 'social banking', in making Buldana Urban Credit Co-op Society a success story.



The second day of the international conference began with Poster presentations by the participants, which were judged by Dr. Kai Totsche. Poster presentations were followed by recitation of the College song by Mr. Ashutosh Joshi, Assistant Professor, B. N. Bandodkar College of Science, Thane. The third technical session of the conference was chaired by Dr. Subhankar Roy Barman. Dr. Minal Dukhande, Assistant Professor, G. N. Khalsa College of Arts, Science and Commerce, Mumbai, India, was the rapporteur for the session. Ms. Rucha Kulkarni, Assistant Professor, Department of Biotechnology and Microbiology, compeered the session.

The first talk of this session was by Dr. Asaph Aharoni, Department of Plant & Environmental Sciences, Faculty of Biochemistry, Weizmann Institute of Science, Israel, who spoke on 'Unravelling Plant Metabolism Through The Integration of Heterogeneous Data From Metabolomics, Genetics and Informatics'. His talk highlighted several advanced technologies and genetic research tools and the invaluable knowledge on core metabolic traits obtained through combining them in a single study.

The next speech was by Dr. N. B. Gokhale, In-charge, Plant Biotechnology Centre, College of Agriculture Dapoli Dr. B. S. Konkan Krishi Vidyapeeth, Dapoli, on 'Molecular Markers and its Utilization for Enhancing Breeding Technologies'. He elaborated on different types of genetic markers.

The fourth technical session of the conference was chaired by Dr. Aruna K., Professor, Department of Microbiology, Wilson College, Mumabi, India. Dr. Tara Menon, In-charge, Department of Biotechnology, SIES College of Arts, Science and Commerce, Mumbai, India, was the rapporteur for the session. The oral presentations during session were judged by Dr. Malali Gowda and Dr. Subhankar Roy Barman. The session was compeered by Dr. Ashwini Tilak, Assistant Professor, Department of Biotechnology and Microbiology.

Dr. G. Archana, Department of Microbiology, Faculty of Science, The M. S. University of Baroda, Gujarat, India, elaborated on Modulation of Plant-Metal Interactions by Rhizosphere Bacteria. She threw light on the issue of high accumulation of metals, which in turn limits plant growth. Starting with basic concept of heavy metals, she explained the significant role played by plant growth promoting microorganisms in metal polluted environments, leading to minimum or no accumulation of the heavy metal in edible parts.

The next speaker of the session, Dr. Ashok P. Giri, Sr. Scientist, Plant Molecular Biology Unit, Division of Biochemical Sciences, CSIR-National Chemical Laboratory, India, addressed the gathering on the topic 'Crop protection from lepidopteran insect pests: Scope and challenges'. He elaborated on his work on 'dietary pesticides' and their effects on *H. armigera* larvae.

The valedictory session was compeered by Dr. Ashwini Tilak. In his valedictory address, Dr. Malali Gowda, Professor, Transdisciplinary University (TDU), Foundation of Revitalization of Local Health Traditions (FRLHT), Bangalore, India, delivered lecture on the topic 'Genomics accelerated plant research in India'. He mentioned that genomics and bioinformatics would

help to understand the mechanisms behind disease resistance, drought, yield etc. and help produce designer plants with the help of genome-assisted molecular breeding.

Following the valedictory address by Dr. Gowda, winners of poster and oral presentations were announced. Ms. Zahera Momin and Ms. Vanita Gadagkar, Assistant Professors from B. N. Bandodkar College of Science, bagged prizes in oral presentation, while Ms. Chitra Nair, Assistant Professor, B. N. Bandodkar College of Science and Mr. Farhan Suraliwala, Department of Botany, SVKM'S Mithibai College, Mumbai, won the first and second prize in poster presentation.

In his concluding address, Dr. V. V. Bedekar, Chairman, VPM, congratulated the organizers for well planned organization of the conference. He pointed out the serious issue of wastage of food during gatherings and urged the students to avoid doing the same and be responsible citizens.

Dr. Jayashree Pawar, organizing Secretary of the conference, gave the vote of thanks. She precisely mentioned that identity of authors was not revealed while selecting papers for publication in proceedings, as well as judging process. The event was concluded with the recitation of 'Vande Mataram'. Feedback of the participants was collected. The event has been captured by recording the same.

**Dr. Jayashri Pawar**



## **Career Melawa for Junior College Students**

Career Melawa was organized on Thursday 30<sup>th</sup> November 2017 between 9.00 am to 1.00 pm for F.Y.J.C. and S.Y.J.C. students. Four prominent personalities guided our students approximately 250 students attended this program.

Our 1<sup>st</sup> speaker was Mr. Santosh Karle, he has done his Masters in Economics. He is giving career guidance lectures on radio for many years. He has given idea about different entrance exam other than JEE or NEET. He gave competitive exam dates and websites all students were very attentive throughout the lecture. He had impressed students with his deep knowledge about option available choosing career.

Our 2<sup>nd</sup> speaker was Mrs. Swarika Tiwari. She is currently working with Azayesha foundation. She enlightened the students by giving speech on 'To promote skill India' she had focused on topics related to various career options for students such as engineering, hotel management, Tours and travels, law courses, rain water harvesting etc.

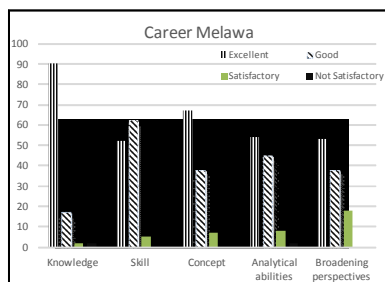
Our third speaker was Capt. Chandrashekhar who guided our students on how they can enhance their career in defense services. He guided students about various exams conducted for pursuing career in Navy.

Our core speaker was Mr. Soham D'Souza who is presently working as a senior manager at Avanti Learning center. He discussed about how to prepare competitive exams such as NEET, JEE main and Advance, MPSC etc.

Students get motivated by these lectures; Students doubts are solved by the speakers. After this program students were given Feedback forms to give feedback. According to feedback received from the students, gave 90% excellent ratings. Students parameter gives detail idea about this.

This career Melawa was beneficial for the students as they have now better idea about various career options available to choose from.

Student's parameter	Excellent	Good	Satisfactory	Not Satisfactory
Knowledge	90	17	02	02
Skill	52	62	05	-
Concept	67	38	07	-
Analytical abilities	54	45	08	02
Broadening perspectives	53	38	18	-



**Mr. M. Nair**  
Vice Principal, Jr. College

## **Mangalagaur for Japanese Students**

On 7th September 2017, B.N.Bandodkar College science invited 15 Japanese guest from Kyoto University to explore the "INDIAN CULTURE".

Cultural committee organized various performances depicting our culture. The program was held in Patanjali Auditorium at around 2:30 pm. The program began with lamp lighting and saraswati poojan by our Japanese guests. Our honorable principal ma'am Dr Mrs M.K.Pejaver spoke few words and Cultural Coordinator Prof Prakash Mali initiated the program by a short speech.

The performance began with the traditional "Ganesh Vandana" by our student Miss Chetana. Students and non teaching staff (office staff) performed on the songs of mangalagaur like "Salunkahi Salakhi", "Pinga", "aagota paagota", "kikicha pan bai kiki", any many more. A famous traditional Gondhal song was performed by our student A special performance was given by our Teachers and non teaching staff on the "Balya" dance.

The guests along with our principal, teachers and students enjoyed dancing on the mangalagaur songs.

A Japanese song was sung by our student Miss Nyle Gaikwad. The program ended with thanksgiving and breakfast to all the guests, teachers and participants.

**Dr. Sudesh Rathod**  
Co. Cultural Committee



## **PHYSICS CARNIVAL 2K18**

Department of Physics of Our College celebrated 'Physics Carnival 2K18' on 16th and 17<sup>th</sup> Jan 2017. Physics carnival was inaugurated by Dr. Mrs. M. K. Pejaver, Principal of our college accompanied by S.Venkatraman, Vice-principal and A. Nair, Vice-principal of Junior College. Number of events were arranged during the two days in which we try to show Physics in day to day life.

### **Physics Carnival included the following events:**

- 1: Physics factory which includes demonstration of project and models.
- 2: Gemiza and Hunting Mania: Fun games based on simple physics concepts.
- 3: Poster Presentation: Presentation of any physics related topic.
- 4: Debate competition: Comparison of Positive and negative points of given Topic.
- 3: Ex Quiz me: Quiz event.
- 4: Guest lecture on topic: Welcome to the world of Magic

### **Preparation for the Physics Carnival:**

Planning for the Physics Carnival began in the month of November and a core committee was formed which included students and some teachers. Later on many students from F.Y.Bsc, S.Y.BSc, T.Y.BSc. And MSc. joined as volunteers. Even Students who did not have physics as major subject joined as volunteers for Physics Carnival. The total number of volunteers was 60.

### **EVENT DETAILS:**

#### **1) Physics Factory:**

First event was 'Physics Factory' which includes demonstration of project and models. Some interesting and inspirational projects done by our MSc students were the attraction point of the event. Also the students explained important theories like relativity and recent gravitational waves and its history.

2) Gamiza: Volunteers prepared beautiful games which explains basic principle of physics like reflection of light, magnetism, electronics, projectile motion etc. The Games were free to play for anyone.

3) Poster presentation: The event was designed to inculcate the research and presentation qualities in students.

4) Debate competition: The event was newly introduced for physics to make students think in the favour of the topic and against the topic. This will enhance the decision making quality in students. The Topics were 1. Science: A Threat for Society, 2. Can Science

## SANYUJA 2017-18

Solve Development Problems, 3.Theoretical Science and Applied Science, 4. Private Sector Investment in Defence and Space Research.

- 5) Treasure hunt: 33 teams participated in the event. Out of it 7 teams selected by conducting preliminary round. We conducted treasure hunt competition not only for students but also for staff. All puzzles and tasks were based on simple and day to day life Physics.
- 6) Ex Quiz me: Quiz was the most interesting part of the Event. 28 teams participated in the event. 6 teams were selected by conducting preliminary round. These 6 teams competed on the day of carnival. 3 rounds conducted based on different skills of the students. 3 teams were awarded as winner of the event.
- 7) Guest Lecture: To not make usual routine of Guest lecture Prof. B. D. Chakradeo entertained public with his skills in experimental Physics. He demonstrated a series of experiments with detailed observation which is not covered in regular texts. The way of conveying the laws using demonstrations was the key structure of the event. Students not only understand the laws but also enjoyed the physics as magic in the session.

Apart from the regular session Volunteers Decorated the Physics lab which explains physics concept. They made best out of waste by using plastic bottles to make curtain and decoration. Also the solar system view in the MSc. Lab was very beautiful. The clouds made of cotton explains the dispersion of light.

Approximately 200 students took part in the different competitions and approx. 400 students and teachers visited the event. Approx. 60 Volunteers from Msc., Ty, Sy, FY and also from Junior college were working hard for days together to shape the Physics Carnival 2K18.

I would like to thank core committee, Physics teaching and Non-teaching staff, participants, Audience and last but not the least Our Principal for being the Part Physics Carnival 2K18. Special thanks to Our Vice-Principal and Head of the Department Prof. S. Venkatraman.



**B. K. Mandlekar**  
Co. Physics Club

# Results & Achievements







## **STUDENTS COUNCIL**

**According to Maharashtra Public Ordinance University Act 28,**

**dated 26<sup>th</sup> November 2017**

**2017 - 2018**

- |  |                           |
|--|---------------------------|
| 1. Chairman  | Prin. Dr.Mrs. M.K.Pejaver |
| 2. Coordinator of Students Council<br>(Nominated by Principal) | Mr. S. Venkatraman        |
| 3. N.C.C. Officer- (Boys)                                      | Mr. B.S. Dhumale          |
| 4. Coordinator- Gymkhana                                       | Mr.P.G.Bamane             |
| 5. N.S.S. Programme officer                                    | Mr. B.K.Mandlekar         |

### **STUDENTS REPRESENTATIVES-**

- |   |   |                |
|---|---|----------------|
| 1. General Secretary.                                     | Mr. More Prathamesh   | (OPEN)         |
| 2. Secretary Cultural                                     | Mr. Badgujar Abhijeet B.                                    | (OBC)          |
| 3. Secretary – Gymkhana                                   | Mr. Mhetre Prayag Ajit                                      | (SC)           |
| 4. Secretary – NCC  | Mr. Prathamesh Shinde                                       |                |
| 5. Secretary – NSS  | Ms. Cheulkar Ruhida Shamin                                  |                |
| 6. Class Representative T.Y.B.Sc<br>S.Y.B.Sc.<br>F.Y.B.Sc | Ms Patkar Samrita Chandrakant<br>Ms. Teli Prachi Ramchandra |                |
| 7. Ladies Representative<br>b) Ms. Bhavsar Khushboo S.    | a) Ms. Patil Khushbu G.                                     | (OBC)<br>(OBC) |

### **SPECIAL INVITEES-**

- |                                    |                        |
|------------------------------------|------------------------|
| 1. Vice-Principal (Junior College) | Mr.M.C.Nair            |
| 2. Coordinator- Cultural           | Dr. S.D.Rathod         |
| 3. Supervisor (Junior College)     | Mr. Hemant Naniwadekar |
| 4. Magazine Coordinator            | Dr. Mrs. U.B.Gokhe     |
| 5. For Office Superintendent       | Mr. Chetan Moynak      |

### **STUDENTS SPECIAL INVITEES-**

- |  |   |
|--|---|
| 1. Secretary – Magazine  | Mr. Akshay Patil  |
| 2. Jt. secretary -Magazine   | Mr. Indranil G. Chippalkatti                              |
| 3. Jt. Secretary – Cultural  | a) Ms. Rucha S.Shinde<br>b) Ms. Pritika Matkar S          |
| 4. Class Representative<br>a) Highest in FYJC - admitted in SYJC<br>a) Highest in SSC admitted in FYJC | Ms Dixit Gandhali Ghanshyam<br>Ms. Bhoir Mrunmayee H.     |
| 5. Representative- IT  | Ms. Deepti Shettigar                                      |
| 6. Jt. Secretary – NSS   | a) Ms. Swapnali Kadam<br>b) Ms. Gavravi Sonavane S.Y.I.T. |

## SANYUJA 2017-18

### ANNUAL RESULT - T.Y.B.Sc(SEM V & VI) SUBJECTWISE RESULT ACADEMIC YEAR 2016-2017

TOTAL APPEARED : 527

TOTAL PASSED : 403

PASSING PERCENTAGE : 76.47%

GRADE	O	A	B	C	D	E	F	TOTAL PASS	APPEARE E	Copy Case	Passing Percentage
STATS	1	12	9	7	2	1	7	32	39	82.05	
BIOCHEM	1	4	6	0	0	0	0	11	11	-	100.00
BIOTECH	3	19	11	11	0	0	5	44	49	-	89.80
BOTANY	2	9	3	0	0	0	2	14	16	-	87.50
CHEMISTRY	6	48	26	9	0	0	13	89	102	-	87.25
COMPUTER SC.	0	8	9	5	3	1	12	26	38	-	68.42
HUMAN SCIENCE	0	3	1	0	0	0	0	4	4	-	100.00
MATHS	4	11	1	0	0	0	25	16	41	-	39.02
MICROBIOLOGY	2	7	4	0	1	0	6	14	20	-	70.00
PHYSICS	0	6	13	5	2	0	25	26	52	1	50.00
STATS	6	16	9	4	4	0	4	39	43	-	90.70
ZOOLOGY	3	18	11	3	0	0	1	35	36	-	97.22
TI	0	33	29	18	5	0	30	85	115		73.91
<b>TOTAL</b>	<b>27</b>	<b>182</b>	<b>123</b>	<b>55</b>	<b>15</b>	<b>1</b>	<b>123</b>	<b>403</b>	<b>527</b>	<b>1</b>	<b>76.47</b>
Total Pass Percentag	<b>6.70</b>	<b>45.16</b>	<b>30.52</b>	<b>13.65</b>	<b>3.72</b>	<b>0.25</b>	<b>30.52</b>				
Total Appeare Percentag	<b>5.12</b>	<b>34.54</b>	<b>23.34</b>	<b>10.44</b>	<b>2.85</b>	<b>0.19</b>	<b>23.34</b>	<b>76.47</b>			

#### FIRST THREE IN COLLEGE

SR.NO.	NAME OF STUDENTS	TOTAL	SUBJECT
1	CHAVAN PRIYANKA MARUTI SANGEETA	1118	STATS
2	ANSARI HAMDA MOHD ASLAM QUDSIYA	1114	MATH
3	KHOPEKAR RUFIIYA GULAM KHALID NAJMA	1105	CHEMISTRY



## SANYUJA 2017-18

### SUBJECT WISE FIRST IN COLLEGE

SR.NO.	NAME OF STUDENTS	TOTAL	SUBJECT
1	NAVGE OMKAR SUDHIR POONAM	1256/1600	Human Science
2	SHAH NEHA FARHEEN HABIBULLAH TEJUB	1237/1550	IT
3	CHAVAN PRIYANKA MARUTI SANGEETA	1118/1200	STATS
4	ANSARI HAMDAMOH D ASLAM QUDSIYA	1114/1200	MATHS
5	KHOPEKAR RUFIA GULAM KHALID NAJMA	1105/1200	CHEMISTRY
6	DESHPANDE YASH RAJENDRA SUJATA	1095/1200	MICROBIOLOGY
7	MOHITE VRUSHALI RAVINDRA MANISHA	1085/1200	BOTANY
8	SHETH SALONI VIVEK SWATI	1035/1200	ZOOLOGY
9	VARMA JYOTI JAISINGH GEETA	1032/1200	BIOTECH
10	APTE BHARAVI BALKRISHNA MADHURI	1001/1200	PHYSICS
11	AZMI NASHRAH SAIF RAHELA	948/1200	BIOCHEM
12	DUDE SIDDHESH RAMESH RUPALI	911/1200	COMPUTER SCI.

**JUNIOR COLLEGE****F.Y.J.C. Result for the Academic Year 2016-17**

No. of students appeared	:	470
No. of students cleared with Distinction	:	57 (12.13%)
No. of students cleared with First class	:	214 (45.53%)
No. of students cleared with Second class	:	168 (35.74%)
No. of students cleared with Pass class	:	07 (01.49%)
No. of students Failed	:	24 (05.11%)
Total No. of Candidate Passed	:	446
Percentage of Result	:	94.89 %

**FIRST IN RANK**

Rank	Roll No.	Name of the Student	Marks	Percentage
1	363	PATIL DARSHANA RAJENDRA SUREKHA	598	92.00
1	340	DIXIT GANDHALI GHANASHYAM GEETA	618	95.13
2	363	PAWALE PURVA TUKARAM MANGAL	593	91.28
3	364	POLEKAR SHRUSHTI SHASHANK VISHAKHA	587	90.26

**FIRST IN SUBJECT**

Sr. No.	Subject	Roll No.	Name of The Student	Marks out of 100
1	English	439	/ MHATRE KAJAL VIJAY JOSTNA	88
2	Marathi	101	/ KATHE ADITI DATTU HEMLATA	86
3	Hindi	421	KANNAUJIYA AMAN RAMBALI REENADEVI	85
4	Sanskrit	302	/ MANDLIK SHARVARI DHANANJAY ANJALI	81
5	Maths	340	/ DIXIT GANDHALI GHANASHYAM GEETA	98
6	Physics	340	/ DIXIT GANDHALI GHANASHYAM GEETA	89
7	Chemistry	340	/ DIXIT GANDHALI GHANASHYAM GEETA	98
8	Biology	001	/ AGRAWAL AMRITA BRIJ DEEPA	88
9	Comp. Sci.	340	/ DIXIT GANDHALI GHANASHYAM GEETA	199 / 200

**JUNIOR COLLEGE****HSC Result for the Academic Year 2016-17**

<b>No. of students appeared (Fresh)</b>	<b>:</b>	<b>476</b>
<b>Fresh + Private+Repeaters</b>	<b>:</b>	<b>476 + 08 + 58 = 542</b>
<b>No. of students cleared with First class with Distinction</b>	<b>:</b>	<b>66</b>
<b>No. of students cleared with First class</b>	<b>:</b>	<b>188</b>
<b>No. of students cleared with Second class</b>	<b>:</b>	<b>181</b>
<b>No. of students cleared with Pass class</b>	<b>:</b>	<b>05</b>
<b>No. of students Failed</b>		
<b>Fresh + Private+Repeaters</b>	<b>:</b>	<b>36 + 07 + 27 = 70</b>
<b>Total No. of withheld Result</b>	<b>:</b>	<b>NIL</b>
<b>Total No. of Candidate Passed</b>		
<b>Fresh + Private+Repeaters</b>	<b>:</b>	<b>440 + 01 + 31 = 472</b>
<b>Percentage of Result (Fresh)</b>	<b>:</b>	<b>92.43%</b>

**FIRST IN RANK**

Rank	Name of the Student	Marks	Percentage
1	/ Kazi Hiba Mohmmad Rafique Gulnar	596	91.69%
2	Modi Hinay Nainesh Hansa	591	90.92%
3	Chavan Omkar Suresh Suman	580	89.23%

**FIRST IN SUBJECT**

Sr. No.	Subject	Name of The Student	Marks out of 100
1	English	Sawant Aditya Ankush Vaishali	90
2	Marathi	Date Omkar Ashok Vandana	90
3	Hindi	/ Kazi Hiba Mohmmad Rafique Gulnar	89
4	Sanskrit	/ Petare Apeksha Milind Anupama	95
5	Maths	Tarawade Sunny Deepak Sangeeta	98
6	Physics	1) Chavan Omkar Suresh Suman 2) Modi Hinay Nainesh Hansa	96
7	Chemistry	Modi Hinay Nainesh Hansa	92
8	Biology	/ Kazi Hiba Mohmmad Rafique Gulnar	96
9	Comp. Sci.	Modi Hinay Nainesh Hansa	190/200



**SANYUJA 2017-18**

**ANNUAL RESULT - M.SC (SEM II to SEM IV)**  
**ACADEMIC YEAR 2016-2017**

Total Appeared :- 79  
 Total Passed :- 69  
 Percentage :- 87.34%

**FIRST THREE IN COLLEGE**

Subject	Name of The Student	Marks Obtained
CHEMISTRY	BAIG TASNEEM FATMA SIRAJ AYSHARUNNISA	2017/2400
PHYSICS	NANDI NEHA VRUSHABHENDRA JAGADEVI	1947/2400
EVS	CHAWRE APURVA ASHOK BHARTI	1896/2400

**Subjectwise Result : 2016-2017**

GRADE	O	A	B	C	D	E	F	TOTAL PASS	APPEARE D	Passing Percentage
Biodiversity and Wildlife	2	9	0	0	0	0	2	11	13	84.62
Chemistry	2	3	4	0	0	0	0	9	9	100.00
Environmental Science	0	13	2	0	0	0	2	15	18	83.33
Physics	0	6	10	1	0	0	2	17	19	89.47
IT	0	4	7	6	0	0	3	17	20	85.00
Total	4	35	23	7	0	0	9	69	79	87.34
Total Pass Percentag	5.80	50.72	33.33	10.14	0.00	0.00	13.04			
Total Appeare Percentag	5.06	44.30	29.11	8.86	0.00	0.00	11.39			

**Subject wise First in College :**

Subject	Name of The Student	Marks Obtained
CHEMISTRY	BAIG TASNEEM FATMA SIRAJ AYSHARUNNISA	2017/2400
PHYSICS	NANDI NEHA VRUSHABHENDRA JAGADEVI	1947/2400
Environmental Science	CHAWRE APURVA ASHOK BHARTI	1896/2400
IT	MAHADIK ALPANA ARUN USHA	1849/2400
Biodiversity and Wildlife	PARAB TUSHAR PRADEEP	1667/2000

## DEGREE COLLEGE ENDOWMENT PRIZES 2016 – 2017

Sr. No	Name of Awardee	Name of the award Student Winning Student	Award Specifications
1	Late Mrs. Anandibai Krishna Gokhale Science Prize of Rs.135/- (Through Late Shri R.K. Gokhale, Thane).	<b>CHAVAN PRIYANKA MARUTI</b>	Being the first in rank among the students of this college passing B.Sc. Examination of Mumbai University in April, 2017
2	Late Shri Gunakar N. Joshi Smarak the Yojana Science Prize of Rs.150/- (Through Past Students' Association).	<b>CHAVAN PRIYANKA MARUTI</b>	Being the first in rank amongst students of this college passing B.Sc. Examination of Mumbai University, April, 2017
3	Shri Swami Samarth Prize of Rs.170/- (Through Dr. R.P. Athalye & Family).	<b>SHETH SALONI VIVEK</b>	To the student of this college passing TYBSc. Examination of the University securing highest marks in Zoology at FYBSc/ SYBSc & TYBSc taken together and who has completed the B.Sc. Degree Course in three years without A.T.K.T.
4	Shri Swami Samarth Prize of Rs.100/- (Through Dr. R.P. Athalye & Family).	<b>Chavan Durgesh Dilip</b>	To be awarded to the student who has secured first prize in Music Competition.
5	Shri Dattaram S. Natekar & Mrs. Kamal D. Natekar Thane Science Prize of Rs. 45/- in memory of their son Late Vijay Natekar.	<b>CHAVAN PRIYANKA MARUTI</b>	Being the first in rank among the students of this college passing B.Sc. Examination, April, 2017
6	Shri Dattaram S. Natekar & Mrs. Kamal D. Natekar Thane Science Prize of Rs.45/- in memory of their son Late Vijay Natekar	<b>MOHITE VRUSHALI RAVINDRA (Botany)</b>	Securing highest marks from amongst Backward Class students of this college passing B.Sc. Examination, April, 2017
7	Late Prof. Dr. Mrs. S.S. Borgaonkar (Through Prof. S.K. Borgaonkar).	<b>SHETH SALONI VIVEK</b>	To the student of this college passing Prize of Rs. 270/- TYBSc Examination of the University securing highest marks in Zoology.
8	Late Shri Mandar Suryakant Joshi Shri S.M. Joshi, Thane.	<b>Girls NCC (Army Wing)</b> <b>1) Khamkar Pooja Prabhakar</b> <b>2) Shirke Aishwarya Hanmant</b>	To be awarded to the best NCC cadet Prize of Rs.301/- through of this college alternately from Boys/ Girls NCC (Army Wing) every year.

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9	Shri Dhondo Waman Tillu Science Scholarship of Rs.1000/- (Through Vidya Prasarak Mandal, Thane).	<b>GHADGE MAYURESH DILIP</b>	To be awarded to the student studying in Post Graduate Class with annual income less than Rs.1,50,000/- As selected by the donor.
10	Late Shri Deepak Ganesh Kokaje Prize of Rs. 270/-.	<b>APTE BHAIRAVI BALKRISHNA</b>	To the student of this college passing TYBSc Exam of the University securing highest marks in Physics.
11	Late Shri Bhagwandas Huku Hotchand Keswani Prize of Rs.270/-.	<b>ANSARI HAMDA MOHD ASLAM QUDSIYA</b>	To be awarded to the student of this college securing highest marks in Mathematics.
12	Late Shri Bhoir Himanshu R. Prize of Rs.270/-.	<b>MOHITE VRUSHALI RAVINDRA MANISHA(Botany)</b>	To be awarded to the student of this college passing T.Y.B.Sc. Exam. securing highest marks in Botany.
13	Late Smt. Indira Phadake Prize of Rs.270/-(Through Prof. Mrs. S.M. Phatak)	<b>CHAVAN PRIYANKA MARUTI</b>	To be awarded to the student of this college passing TYBSc. Exam. securing highest marks in Statistics.
14	Late Shri. G.R.Patil and Late Smt. S.G.Patil Prize of Rs.270/- (through Ex-Principal Shri.C.G.Patil, Thane).	<b>Rathod Akshay Vijay</b>	Being the first in F.Y.B.Sc. in the College Examination in the academic Year 2016 – 2017
15	Late Shri. G.R.Patil and Late Smt. S.G.Patil Prize of Rs.270/- (through Ex-Principal Shri.C.G.Patil, Thane).	<b>Cheulkar Ruhida Shahim</b>	Being the first in S.Y.B.Sc. in the College Examination in the academic Year 2016 – 2017
16	Late Shri. G.R.Patil and Late Smt. S.G.Patil Prize of Rs.270/- (through Ex-Principal Shri.C.G.Patil, Thane).	<b>BAIG TASNEEM FATMA SIRAJ AYSHARUNNISA</b>	Being the first in M.Sc. In the College in the academic year 2016 – 2017
17	" Mayuresh and Alpana Past Students Statistics 1984" Prize of Rs.270/- (Through Past Students Dhond & Alpana Gupte)	<b>CHAVAN PRIYANKA MARUTI</b>	Being the first in Statistics in T.Y.B.Sc. Examination April 2017
18	Prize of Rs. 1000/- (Through the past students of 1984 Batch of this college	<b>APTE BHAIRAVI BALKRISHNA (Physics)</b>	Prize to be awarded on rotation basis to the toppers of three subjects every year (Mathematics / Statistics Chemistry / Physics / Zoology / Botany)
19	Prize of Rs. 1000/- (Through the past students of 1984 Batch of this college	<b>SHETH SALONI VIVEK (Zoology)</b>	Prize to be awarded on rotation basis to the toppers of three subjects every year (Mathematics / Statistics Chemistry /Physics / Zoology / Botany)



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20	Prize of Rs. 1000/- (Through the past students of 1984 Batch of this college)	<b>MOHITE VRUSHALI RAVINDRA (Botany)</b>	Prize to be awarded on rotation basis to the toppers of three subjects every year (Mathematics/ Statistics Chemistry / Physics / Zoology/ Botany)
21	Late Dr. Dattatraya Balkrishna Pendharkar L.C.P.S. Jalgaon Prize of Rs.270/- (through Mrs. Sheela Gajanan Tembe, Thane).	<b>CHAVAN PRIYANKA MARUTI</b>	To be awarded to the First in rank among the students of this college in T.Y.B.Sc – 2016 – 17
22	Ex-Principal Dr. Govind V. Kulkarni Prize of Rs.2000/- Through Shri Vijay Gopal Kulkarni & Shri Sanjay Gopal Kulkarni (USA)	<b>SHETH SALONI VIVEK</b>	To be awarded to 1st in college in T.Y.B.Sc Zoology – 2016-17
23	Late Shri Gopal V. Kulkarni Prize of Rs.2000/- through Shri Vijay Gopal Kulkarni & Shri Sanjay Gopal Kulkarni (USA)	<b>CHAVAN PRIYANKA MARUTI</b>	To be awarded to 1 <sup>st</sup> in college among the students of all subjects in T.Y.B.Sc – 2016-17

The Prizes will be distributed at the time of Prize Distribution Ceremony, to be held on 9<sup>th</sup> February 2018.

### Teacher's Achievements



**Pralhad S. Wagh**  
NET and SET (UGC) in  
Chemical Science



**Ms. Zahera Momin**  
MH-SET in  
Biological Science



**Ms. Sayali Daptardar**  
TNSET in  
Biological Sciences



**Ms. Vanita Gadagkar**  
Won best oral presentation  
prize at International  
conference



**Ms. Chitra Nair**  
Won best poster presentation  
prize at International  
conference



**Mr. Vinod N Thorat**  
Silver medal in Inter-collegiate  
carrom competition



**Mr. Anil Athavle**  
Gold medal in National Talent  
Search Examination.

## JUNIOR COLLEGE ENDOWMENT PRIZES 2016 – 2017

Sr. No	Name of Awardee	Name of the award Student	Award Specifications
1	Dr. V.N. Bedekar Science Prize of Rs.125/- (on behalf of Vidya Prasarak Mandal, Thane).	Ms.Kazi Hiba Mohammad Rafique Gulnar	Being the First in rank among the students of this college passing HSC Examination of Mumbai Board in February, 2017
2	Late Shri Vasant Ramkrishna Karnik & Smt.Indira V. Karnik Science Prize of Rs.90/- (Through Shri.Shirish V. Karnik) this college in FYJC Class.	Ms. Bhoir Mrunmayee Harichandra	Obtaining the Highest Marks at the SSC Examination, March 2017 among the students admitted to
3	Late Shri Gunakar N. Joshi Smarak Yojana Science Prize of Rs.150/- (through Vidya Prasarak Mandal, Thane).	MS.Kazi Hiba Mohammad Rafique Gulnar	Being the First in rank among the students of this college at the last HSC Examination of Mumbai Board
4	Late Shri Hanumant Sitaram Dixit Prize of Rs.270/- (through Prof. M.H. Dixit).	Ms.Kazi Hiba Mohammad Rafique Gulnar	Obtaining the Highest Marks in Biology among the students of this College passing HSC Exam, of March, 2017 of Mumbai Divisional Board.
5	Late Shri Madhav Govind Deo & Late Smt. Mangalabai Madhav Deo, Thane 1st Prize of Rs. 135/-.	Ms.Kazi Hiba Mohammad Rafique Gulnar	To be awarded to the student securing highest marks & ranking in Science Faculty in H.S.C. 2016-17
6	Late Shri Madhav Govind Deo & Late Smt. Mangalabai Madhav Deo, Thane 1st Prize of Rs. 135/-.	Ms.Kazi Hiba Mohammad Rafique Gulnar	To be awarded to the student securing highest marks & ranking in Science Faculty in H.S.C.- 2016-17
7	Late Mr. Ramchandra Govind Ranade Prize of Rs. 400/- (Applicable from 2017 to 2027 only)	Ms.Dixit Gandhali Ghanashyam Geeta	Being the First in rank among the students of this college passing F.Y.J.C. Exam of March, 2017
8	Late Mr. Narayan Ganesh Sathe Prize of Rs. 400/- (Applicable from 2017 to 2027 of only)	Ms.Dixit Gandhali Ghanashyam Geeta	Obtaining the Highest Marks in Mathematics among the students this College passing F.Y.J.C Exam, of March, 2017

The Prizes will be distributed at the time of Prize Distribution Ceremony, to be held on 9<sup>th</sup> February 2018

## Academic Achievements

### I Avishkar Achievements

- 1<sup>st</sup> Rank - Research project was on “**Immobilization of PGPRs from Vetiver as Armed Green Forces**” **Spectroscopic analysis of Bioactive compound from *Lantana camara***” completed by **Rutuja Mhatre and Shivani Kasnurkar** under the guidance of **Ms. Purvi Shah**.
- 2<sup>nd</sup> Rank - Research project was on “**Synthesis of Natural Dye Nanoparticles and its Analysis**” completed by **Kanad Ghaisas and Siddhesh Thorat** under the guidance of **Dr. (Mrs.) Anita Goswami-Giri**.
  - **Kanad A. Ghaisas and Siddesh Thorat** presented their research project and bagged the 1<sup>st</sup> prize at International Conference of “EMERGING TRENDS IN BASIC AND APPLIED SCIENCES 2017”.
  - **Mr. Yash Deshpande and Ms. Kajal Naukaria, T.Y.B.Sc. Microbiology and T.Y.B.Sc. Biotechnology students respectively, bagged Gold medal at the at “unge forskere”, the International ‘Young Scientist Fest and Contest’ held at Copenhagen, Denmark, in April 2017 in ‘International Category’.** They presented their work along with their colleagues Mr. Subhash Khatri and Ms. Praniti Ghatmale on the research project “Hidden Treasure from Vermiwash as an Agricultural Boon” guided by Dr. Kalpita Mulye, Dr. Jayashree Pawar and Ms. Zahera Momin.
  - **Nine students of the Biotechnology and Microbiology Departments cleared National level competitive exams with good ranking are as follows.**

Name of the Student	Exam	category	rank
Subhash Khatri	TIFRIIT JAM	Integrated Msc. Ph.D.	<b>Amongst top 6 who got selected all over India</b>
		Biological Sc. Rank	95
Mr. Yash Deshpande,	MSUJNU	Microbiology	<b>Cleared with 1st rank at National level</b>
			45
Nikhil Pahelkar	IIT JAMJNU	Biotechnology (BT)	25664
Gaurav Purohit	IIT JAM	Biotechnology (BT)	626
Shubham Tiwari	IIT JAM	Biotechnology (BT)	753
Ms. Kajal Naukariya	MSUJNU	Medical Biotech	cleared274
Ms. Subhashini Singh	MSU	Medical biotechnology	cleared
Ms. Myuri Goriwale	JNU		140
Mr. Kevin Kambli	MSU	Medical biotechnology	cleared

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- **Selection of project for the regional round of 'New Zealand-India Sustainability Challenge' (#NZISC):** Project on 'Microbial Fuel Cell as Alternate Energy Resource' by SYBSc students Ms. Snehal Poojari and Ms. Latika Anchan; guided by Dr. Kalpita Mulye and Dr. Jayashree Pawar was selected for regional round presentation of the competition organized by TERI, in partnership with Education New Zealand (ENZ) on 1<sup>st</sup> September 2017.

### NCC Army Achievements

1. **ASC THANE** contingent of B.N.Bandodkar college won first prize in drill competition and first prize in cultural competition held in CATC khadavali.
2. **ASC THANE UNIT** won first prize in drill competition and second prize in cultural in and **CDT Shubham Nilkanth** won **second** prize in best cadet competition held at Sidharth college.
3. **ASC THANE UNIT** won first prize in drill competition held at Joshi-Bedekar college.
4. **CDT Rushikesh Tukaram Dhane** represented Maharashtra at **ALL INDIA THAL SAINIK CAMP** which was held at New Delhi. He won all India **gold** medal in health and hygiene competition.
5. **SUO Nitesh Zilu Gaonkar** represented Maharashtra at NATIONAL INTEGRATION CAMP which was held at Varanasi. He won silver medal in all India debate competition. And won overall championship trophy for Maharashtra DTE.
6. **JUO Ashok Jeetbahadur Yadav** represented Maharashtra at NATIONAL INTEGRATION CAMP which was held at Sikkim Namchi. He won silver medal in culture competition.
7. **CSM Sujit Suraj Bhosale** represent Mumbai 'B' group as a parade commander in Inter Group Competition held at Aurangabad. He represents our unit in various competitions as Parade Commander.
8. **Cadet Sajid Khan** won silver medal in best cadet competition at combined annual training camp in IIT Powai, Mumbai.
9. **JUO Prayag Ajit Mhetre** represented 'Mumbai B' group at shivaji trail trek which was held at kolhapur.
10. **CDT Shubham Nilkanth** represented Maharashtra at PM's Rally at New Delhi.
11. **CDT Nitin Gajanan Suroshe** represented Maharashtra at PM's Rally and Won First Prize in NIC II held at New Delhi.
12. **CDT RAhul Kambre** Represented Maharshtra at PM's Rally and won First Prize in NIC II held at New Delhi.
13. **CDT Anhijeet Shivaji Barkade** represented Maharashtra at PM's Rally and won First Prize in NIC II Held at New Delhi.



### NCC NAVY ACHIEVEMENTS

1. Cadet Captain Vishal Gauda won silver medal in best cadet competition at COMBINED ANNUAL TRAINING CAMP (CATC) held at Navy Nagar Colaba
2. PO cadet Ankita Mulik won silver medal in best cadet competition at COMBINED ANNUAL TRAINING CAMP (CATC) held at Navy Nagar Colaba
3. PO cadet Ankita Mulik won silver medal for Maharashtra in best traditional costume and silver medal for Maharashtra in group dance in national integration camp held at Namchi, South Sikkim
4. Cadet Mohit Kothiyal participated in all india trekking camp held at Amarkantak, Madhyapradesh
5. Cadet Seema Dubey won broze medal in swimming competition at scuba diving camp held at western naval command , Mumbai
6. Cadet Seema Dubey won gold medal in best overall scuba diver at scuba diving camp held at Western Naval Command, Mumbai
7. Leading cadet Bilal Khan participated in scuba diving camp held at Western Naval Command , Mumbai
8. Leading cadet Rahul Jangam participated in yatching regatta camp held at Indian Naval Watermanship Training Centre Mumbai.
9. Leading cadet Sachin Rajput participated in all India Nausainik camp held at Karwar , Karnataka

### Gymkhana Achievements

**Abhijeet Badgujar** of T.Y.B.Sc class won silver medals in Khelutsav 2017 and GOLD (Badminton Doubles, 100m ), and BRONZE (800m) in college.

### शैक्षणिक प्राविण्य

- १) प्रीती सब्बनवार राष्ट्रीय प्रज्ञा शोध परिक्षा, गोवा मध्ये सुवर्णपदक
- २) अलका यादव राष्ट्रीय प्रज्ञा शोध परिक्षा, गोवा मध्ये रौप्यपदक

## SANYUJA 2017-18



1<sup>st</sup> Prize (singing solo) Pallavi Bulakhe, 1<sup>st</sup> Prize (singing solo) Pallavi Bulakhe, 2<sup>nd</sup> solo Alka Yadav 3<sup>rd</sup> Jr. Darsan Patil & 2<sup>nd</sup> solo Alka Yadav 3<sup>rd</sup> Jr. Darsan Patil & Acting Jr. 2<sup>nd</sup> Prize Raksha Group Acting Jr. 2<sup>nd</sup> Prize Raksha Group Degree Acting 1<sup>st</sup> Prize at "Toilet" Drama Degree Acting 1<sup>st</sup> Prize at "Toilet Drama" Intercollegiate competition at Shrirang School, Thane organized by lion's club group. Chief Guest Musical Director Shri Anand Menon.

# Articles

A large, stylized illustration of a pencil pointing upwards, with a dense cloud of various educational and scientific icons emerging from its tip. The icons include letters, numbers, mathematical symbols, scientific symbols, and various objects like a globe, a clock, a book, and a microscope.





## अबोला

बडबड कंटाळवाणी वाटली तरी अबोला खूप वाटतो. तोच आहे जो नेहमी आपल्यामधील दुवा साधतो पण अबोलाच दोघांमधील संवाद असतो असे वाटते.

आपल्या आसपासच्या, जवळच्या काही व्यक्तीविषयी आपल्याला खूप राग येतो. मनात अढी तयार होते. एखादी गोष्ट नाहीच आवडत कधी आपण रुसतो कधी चिडतो. पण त्यांचं मन दुखवायला नको म्हणून आपण गप्प बसतो. सार मनातल्या मनात दाबून टाकतो. तो माणूस गमावण्याची भीतीही त्यात असतेच पण त्यामुळे नात्यातले प्रश्न सुटत नाही उलट नात्यामध्ये दुरावा येतो. आतल्या आत अबोला धरतो हे असं अबोला धरण्यापेक्षा बोला, बोलून मोकळे व्हा.

घर असो की समाज, आजच्या काळातही स्त्रिया हिंसाचाराला बळी पडतात. पितृसत्ताक समाजपद्धतील स्त्रियांचे दुय्यम स्थान त्यांनी स्विकारावे हाच मुळी अन्याय आहे. अबोला धरून अपमान सहन करण्यापेक्षा, त्याविरुद्ध आवाज उठवण्याची स्वतःच्या आत्मसम्मानासाठी खंबीरपणे उभे राहण्याची स्त्रिला नितांत गरज आहे.

शिक्षा करण्याच्या अजब आणि वेगवेगळ्या पद्धती अनेकदा पालक शोधून काढतात. त्यामुळे मुल शक्य तेवढे कुटूंबापासून दुरावतात. मित्रांमध्ये रमत नाही. एकटेच अबोलपणे कुठेतरी भटकू लागतात. दरवर्षी भारतात १ लाख लोक आत्महत्या करतात. यात १५ ते ३५ या वयोगटातील तरुणांची संख्या जास्त आहे. आत्महत्याच करावी असं टोकावर पोहचलेले असताना त्या टोकावरही काही क्षण बोलावं असं कोणीच नसतं अवतीभवती.

मानसशास्त्रज्ञांच्या मते त्याच्यांशी संवाद साधला, त्यांना बोलतं ठेवल, त्यांचं मन मोकळ होवू दिलं तर अनेकजण त्या टोकावरून परत फिरतील. जगातले कुठलेच प्रश्न मेल्याने सुटत नाहीत. पण जगलो तर एक आनंदी आयुष्य स्वतःसाठी जगू शकतो.

आणि गरज पडली तर अबोला धरण्यापेक्षा मदत मागा कारण जगणं जास्त सुंदर आहे.

प्रा. रुपाली न्यायाधीश  
(गणित विभाग)



## शिक्षकास लिहिलेले पत्र

प्रिय शिक्षक,

पत्र लिहण्याची वेळ येईल असं वाटलं नव्हतं पण आज जे काही सांगायचे आहे ते पुन्हा कधी सांगू शकली नसती. माहीत आहे मला आमच्यासारखे विद्यार्थी तुम्हाला शत्रूच समजतात. शाळेत असताना शिस्त लावण्यासाठी कान पकडणारे शिक्षक आम्हाला शत्रूच वाटायचे. पण आता स्वतःच्या पायावर उभे राहिल्यावर तुमच्या बदलचा आदर दुप्पटीने वाढला आहे. तुमचं बरोबर होत असं वाटू लागलयं. “शिक्षक” एक अतूट नाते. जे जीवनात हवहवसं वाटतं. प्रत्येकाच्या आयुष्यात तुमच्यासाठी एक महत्वाचं स्थान असतं, म्हणूनच तुम्ही प्रत्येकाच्या आयुष्यात अग्रस्थानी असतात. एखादी वस्तु किंवा व्यक्ती जेव्हा आपल्या जवळ असते तेव्हा तिची काही किंमत वाटत नसते. पण ती वर गेल्यावर तिची कमतरता जाणवते. जेव्हा आम्ही होतो मातीचा गोळा, तुमच्या हातून खाल्लेला मार आजपर्यंत विसरलो नाही आम्ही. आजमात्र तुम्ही फेसबुक वर आणि व्हाट्सअपवर चेष्टेचा विषय झालात. ‘मास्तर कोमात विद्यार्थी जोमात’, ‘मास्तर पळाला यात्रेला गेला’, ‘बाई शाळा सोडून स्टेशनवर शेंगदाणे विकतात असल्या कमेंट्स जेव्हा लोक करतात ते पाहून काळीज फाटते हो आमचं. आम्हाला ही समजत की तुमच्या आयुष्यात सुद्धा वाईट समस्या असतात पण वर्गात चेहऱ्यावर कोणतीही समस्या न दाखवता तुम्ही आम्हाला आनंदात शिकवता. पण कधीकधी तुमच्या समस्यांचा राग तुम्ही आमच्यावर काढता तेव्हा मनात तुमच्या विषयी तात्पुरती वाईट प्रतिमा तयार होते. तुम्ही पन्नास ते साठ मिनिटे एका वर्गावर उभं राहून शिकवता म्हणजे दिवसाला चार ते पाच तास उभं राहता. एवढं उभे राहून शिकवताना तुम्हाला होणारा त्रास, हा आम्हाला तुम्ही शिक्षेसाठी पाच ते दहा मिनिटे उभं करता तेव्हा खरोखर समजतो. आपल्या देशासाठी राजकारणी, उद्योजक व्हीआयपी आहेत पण आमच्यासाठी खरे व्हीआयपी तुम्हीच आहात. जसं परिसाला स्पर्श केल्याने दगडाचे सोने होते, तसचं तुम्ही दिलेल्या ज्ञानामुळे आमचे सोने होते. शिकवण्याव्यतिरिक्त सुद्धा तुम्हाला अजून ही काम असतात तेव्हा तुमची जी आमच्यावर अतिप्रमाणात चिडचिड होते ती फक्त व्हायला हवी अशीच आमची अपेक्षा. कधीकधी असं होत की काही कारणास्तव तुम्ही आम्हाला ओरडून आमच्या सोबत अबोला धरता पण खरंच सांगू खूपच वाईट वाटते तुम्ही आमच्याशी पकडलेला अबोला पाहून. पुर्वीच्या काळातील विद्यार्थी हे शिक्षकांसमोर येण्यासाठी घाबरायचे पण आमच्या काळात तर तुमच्यात आणि आमच्यात मैत्रीपूर्ण संबंध निर्माण झाले आहेत. पुढे सुद्धा असेच संबंध राहावेत ही आमची एकच इच्छा. शेवटी एकच सांगेल लोक दगडांना देव मानतात पण आम्हां विद्यार्थ्यांसाठी तुम्हीच आमचा खरा देव. तुम्ही भावी नागरिक घडविण्याचे जे काम करत आहात या तुमच्या कार्याला सलाम...!!!

तुमची प्रतिमा आमच्या हृदयात कायमच आदरणीय राहिल. आम्ही अभिमानाने सांगू शकतो की आम्ही साखर झालो हे फक्त आणि फक्त तुमच्याचमुळे. याची जाणीव आमच्या मनात शेवट पर्यंत राहिल.

पत्रात काही चुकलं असेल तर मोठ्या मनाने माफ करा ही आमची इच्छा...

तुमचे विद्यार्थी  
योगिता विलास पडवेकर  
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## अबोला

काही मंडळी अबोल्याचा आपल्या विरोधकांविरोधात शस्त्रासारखा उपयोग करतात. ज्या व्यक्तीशी आपले मतभेद आहेत किंवा काही कारणाने वादविवाद झाला आहे, अशा व्यक्तीशी बोलणे बंद करणे, अबोला धरणे ही बाब समाजात सर्रास आढळते. या अबोल्यांना वयाचे, पदाचे, परिस्थितीचे, प्रांताचे, देशाचे कशाचे ही बंधन नसते. विशेषतः नवरा बायकोच्या नात्यात या अबोल्याला विशेष स्थान आहे. लहानपणी खेळता-खेळता मित्रमैत्रिणींशी भांडण झाले की, कष्टी त कष्टी, बालं बष्टी लिंबाचा पाला तोडू नको, बारा महिने बोलू नको, असे अगदी रितसर सांगून अबोला धरला जायचा, १२ महिन्यांची कालमर्यादा ही घालून दिली जायची. एकप्रकारे १२ महिन्यांनंतर बोलण्याचे आश्वासन दिले जायचे. अर्थात हा अबोला अनेकदा १२ मिनिटातच संपायचा, हा भाग वेगळा. (आताच्या लहान मुलांची अबोला धरण्याची काय पद्धत आहे, महिती नाही.) मोठ्यांचा अबोला मात्र अनेकदा कुठलीही कल्पना न देता सुरु होतो. बरेचदा तर निर्णय एकतर्फी घेतलेला असतो. आपल्याशी अबोला धरला आहे, त्या माध्यमातून तो आपल्याला शिक्षा देतो आहे, हे देखील दुसऱ्या बाजूला अनेकदा माहिती नसते. कधी कधी तर ही अबोल्याची शिक्षा आपल्याला कशासाठी देण्यात आली आहे, हे देखील दुसऱ्या बाजूला कळतच नाही. हे प्रगल्भतेचे लक्षण नक्कीच नाही. अबोल्याने कुठलेही प्रश्न सुटू शकत नाहीत. उलट गैरसमज वाढतात आणि महत्वाचे म्हणजे आयुष्यातले किती सुंदर सोनेरी क्षण या अबोल्यात आपण कायमचे हरवून बसतो. त्यापेक्षा एखाद्या व्यक्तीविषयी आपल्याला काही तक्रार असेल, किंवा त्याच्याशी काही विषयात मतभेद असतील, तर ते चर्चेतून सुटू शकतात. दोघांनीही एकमेकांविषयीच्या तक्रारी शांतपणे, समजुतदारपणे एकमेकांना सांगाय्यात. गरज असल्यास दोघेही ज्या व्यक्तीला मानत असतील, अशा मध्यस्थाला सोबत ठेवावे. त्यातून काही मध्यम मार्ग निघू शकतो का, ते पाहावे. मतभेद अगदीच टोकाचे असतील आणि मार्ग निघण्याची शक्यता संपलेली असेल, तर तेवढा मतभेदाचा विषय बाजूला ठेऊन बाकी संबंध कायम ठेवले जाऊ शकतात. अर्थात यासाठी दोन्ही बाजूच्या व्यक्ती तेवढ्याच प्रगल्भ असणे आवश्यक आहे. कारण बोलणे म्हणजे एकमेकांना त्या निमित्ताने टोचणे किंवा कलगीतुरा नव्हे, तर संभाषण होय. अशाप्रकारे मतभेद विसरून संबंध कायम ठेवणारी माणसे हे समृद्ध मानसिकतेचे लक्षण आहे. अशा पद्धतीने वागणारी माणसेच मोठी होतात. त्यांच्या लोकसंग्रहात दिवसेंदिवस वाढच होते. एरवी अशा बालिश अबोल्याने अनेक वर्षांचे चांगले संबंध संपुष्टात येतात. पुढे कधीतरी कळते कि, ज्या कारणासाठी आपण अबोला धरला होता, तो कोणीतरी तिसऱ्याने निर्माण केलेला गैरसमज होता किंवा आपलाच अहंकार होता की मीच का बोलावे, मीच का पुढाकार घ्यावा, पण हे कळेपर्यंत खूप उशीर झालेला असतो. चांगले नाते कोमजलेले असते. जिथे बोलून किंवा मन मोकळे करून ही दुसरी व्यक्ती समजण्यापलिकडची असेल, किंवा आपल्या समजुतदारपणाला आपली कमजोरी समजली जात असेल. अशावेळी अबोल्याला पर्याय नसतो. अर्थात तरीही तुझ्या अशा वागण्यामुळे मी आता तुझ्याशी बोलणे बंद करणार आहे, हे त्या व्यक्तीला निश्चित सांगावे. आयुष्य किती आहे, कोणाला माहित आहे. मित्रांनो कधीतरी छोट्याशा अहंकारामुळे किंवा गैरसमजामुळे आपण कोणाला तरी अबोल्याची शिक्षा देतो आणि कदाचित मग हळूहळूण्यापलिकडे आपल्या हातात काहीही उरत नाही. अलिकडे हा अबोला मोबाईल, फोन, सोशल साईट्सला ही घेरून बसला आहे. अनेकदा एखाद्या व्यक्तीचा फोनच उचलला जात नाही. त्याच्या संदेशांना उत्तर ही दिले जात नाही. कधी महत्वाचा निरोप असतो किंवा त्या

व्यक्तीला तुमच्या मानसिक आधाराची नितांत गरज असते. अशावेळी त्या व्यक्तीची केलेली अडवणूक हा निव्वळ कुरपणा आहे. आपल्या प्रत्येकाच्याच आयुष्यात असे काही प्रसंग, अशा काही व्यक्ती असतातच. आपण स्वतःहून एक पाऊल टाकून बघुया का? आयुष्यातला कडू रस कमी होतोय का? अशा अबोल धरलेल्या पण हवाश्या वाटणाऱ्या व्यक्तीला मनापासून हळुवार हाक देऊन तर बघा, मनावरचे मणामणांचे ओझे क्षणात उतरेल आणि मनातल्या सुकलेल्या झाडाला कोवळी लुसलुशीत पालवी फुटेल.

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## आजच्या काळातील स्त्री किती सुरक्षित? आजची स्त्री सुरक्षित आहे का?

अनादिकालापासून 'स्त्री ही उपभोगाची वस्तू' हा सामाजिक दृष्टीकोन. लहानपण आई-वडिलांच्या अधिन, नंतर तारुण्यात नवऱ्याच्या आणि वार्धक्यात मुलांच्या ताब्यात पराधिन जगणे. मुलगी, बहिण, पत्नी, आई (माता) या सर्व समाजाने बहाल केलेल्या पदव्या घेऊन जीवन जगायची सवयच लावून घेतलेली आहे. कोणत्याही दुःखाचा किंवा वेदनेचा हुंकारही न देता, त्या सहन करत जीवन जगण्याची मनाची तयारी पूर्वापार चालत आलेली आहे.

या सर्व गोष्टींवर मात करून महात्मा फुले यांच्याबरोबर पुढाकार घेऊन सावित्रीबाई फुले यांनी स्त्री शिक्षणाचा पाया रोवला. सौ. आनंदी गोपाळ जोशी यांच्या सारख्या पहिल्या महिला डॉक्टर होण्याचा सन्मान लाभलेली स्त्री सुद्धा आपल्याच मातीत जन्माला आली होती.

कालांतराने समाजात परिवर्तन घडून आले मुलींच्या शिक्षणाची परवड संपून त्यांनाही शिक्षण सक्तीचे करण्यात आले. एक सुशिक्षित स्त्री, समाजाचे परिवर्तन करू शकते, अशी जाणीव असेल तर, कुटुंब सुशिक्षित होईल आणि नंतर एकंदर समाज सुशिक्षित होऊन, सर्व देश संपन्न होईल.

एकेक पाऊल पूढे टाकत स्त्री हळूहळू शिक्षणासाठी व त्यानंतर आपल्या कुटुंबाला आर्थिकरित्या अधिक सक्षम बनविण्यासाठी घराबाहेर पडू लागली. त्यावेळी तिला समाजातील असुरक्षित घटकांची जाणीव होऊ लागली. मुलगी सकाळी घरातून बाहेर पडल्यावर ती घरी परत सुरक्षित येईल किंवा नाही याची चिंता आईच्या मनाला भेडसवायला लागली. वाटेने जाता-येता रस्त्यातील टवाळखोरांच्या टिकेला किंवा प्रसंगी छेडछाडिली भक्ष्य बनायचे, की त्यावर मात करायला शिकायचे ह्याचा निर्णय सर्वस्वी स्त्रीने स्वतःच घ्यायचा आहे. मानाने जगायचे की मानहानी सहन करीत जगायचे हे तिनेच ठरवायचे. स्वकर्तृत्व व स्वाभिमानाचे शिवधनुष्य जे तिने उचलेले आहे ते स्वबळावर पेलवायचे आहे. बलात्कारासारख्या जीवघेण्या प्रसंगातून, दिल्लीतील 'निर्भया' सारखी मात करून मृत्युच्या कवेत स्वतःला सामावून घ्यायचे की त्या नराधमांना फाशीची शिक्षा होईपर्यंत आपला श्वास रोखून ठेवायचा, हे ती स्वतः ठरवेल. प्रसंगी काही जणी अंधविश्वास व अंधश्रद्धेचे बळी ठरत गेल्या. भोंदू बाबांच्या नादी लागून अघोरी उपायांना असाध्य



गोष्टी साध्य करुन घेण्यासाठी, प्रसंगी अजाण बालकांचे प्राण, 'बळी' म्हणून देण्यात येतात. या सर्व रुढी व परंपरांचे खंडन करण्यासाठी श्री. दाभोळकरांसारख्या 'अंधश्रद्धा निर्मूलन कायद्याचा' पाठपुरावा करणाऱ्या व्यक्तीचे निर्घृण हत्येत पर्यवसान होते.

ज्यावेळी पुरुषांच्या मानसिकतेत बदल घडायला लागेल. त्यावेळी समाज हा स्त्रियांसाठी सुरक्षित होत जाईल. 'सातच्या आत घरात', ही संकल्पना जाऊन, काही अपरिहार्य कारणास्तव मध्यरात्रीसुद्धा घराबाहेर पडताना स्त्रिया मनात भितीचे काहूर माजणार नाही. प्रत्येक पाऊल टाकताना तिला कुणाच्याही सोबतीची उणीव राहणार नाही. स्वतःच्या सुरक्षेसाठी तिला शस्त्राची किंवा सुरक्षा रक्षकाची गरज लागणार नाही. सिंधूताई सकपाळप्रमाणे ती इतरांचे सुरक्षा कवच बनेल.

सर्वात गहन मुद्दा आहे तो आपल्या विकाऊ न्यायव्यवस्थेचा. न्यायदेवतारूपी स्त्री, ज्यादिवशी आपल्या डोळ्यांवरील अंधकाराची पट्टी बाजूला सारेल, त्यादिवशी सर्व स्त्री जमातीचा उदय होईल. कोणत्याही स्त्रिला आपल्यावर झालेल्या अन्यायाची दाद मागायला कोर्टाचे दार ठोठावयची गरज भासणार नाही. सरते शेवटी एक सुरक्षित माता, एका सुरक्षित कन्येला जन्म देणार आहे.

गायत्री हटकर  
S.Y.BSc

**हिरा**

एक मुलगी असते. तिचे बाबा तिला नेहमी प्रश्न विचारत असत. तिला नेहमी वाईट वाटायचे. ती नेहमी विचार करायची. तिने एक दिवस बाबांना विचारले, तुम्ही मला बाहेर का जाऊ देत नाही, माझी बॅग का नेहमी चेक करतात. माझ्या मित्रांविषयी का मला विचारतात. तू हे कपडे नको घालु, ते नको घालु असे का नेहमी सांगतात. मला असे मोकळे पण का देत नाही हे सर्व ऐकून वडिलांना वाईट वाटले. त्यांच्या डोळ्यात पाणी आले. ते तिला बाहेर गावी फिरायला घेऊन जातात. तिला एका लोखंडाच्या दुकानमध्ये नेतात व विचारतात, 'तुला या लोखंडाच्या ठोकळ्याकडे बघून काय वाटते.' ती म्हणाली बाबा या ठोकळ्याला किती गंज लागला आहे, ते खूप जड आहे आणि त्याची किंमतही काहीच नाही. तिच वडील तिला बोलले, बघ बाळा ! हे लोखंड नेहमी इथेच पडलेले असते त्याला कोणी उचलतही नाही. त्याला काहीही भाव नाही. म्हणजेच त्याची किंमत काहीच नाही. मग ते सगळ समजावून बाबा तिला सोनाराच्या दुकानात घेऊन गेले. तिथे एका काचेत एक खुप सुंदर चमकणारा हिरा होता. बाबांनी सांगितल की, या हिर्याची किंमत करोडोत आहे. त्याची किंमत अगण्य आहे पण हा हिरा खाली पडला व तुटला किंवा फुटला तर त्याची किंमत लोखंडापेक्षाही कमी होते. त्याची किंमत खूपच कमी होते. त्याला काही अर्थच उरत नाही. म्हणून या हिर्याला खूप जपाव लागत. तुझा भाऊ लोखंडा सारखा आहे त्याला ऐवढ जपाव लागत नाही पण बाळा तु तर एक हिरा आहेस तुझी काळजी घेण हे आमच कर्तव्य आहे. पण तु जर काही वाईट काम केलस तर त्या तुटलेल्या हिर्यासारखी तुझी स्थिती असेल. ती स्थिती होऊ नये म्हणून तुझी ऐवढी विचारपूस करतो. तुझी बॅग चेक करतो. तुला तस चालत नसेल तर तस सांग, मी तुझ्यावर सक्ती करणार नाही.

एवढं सगळ बोलतांना बाबांच्या डोळ्यात अश्रु आले व ती मुलगीही रडू लागली. ती तिच्या बाबांना बोलली, 'बाबा मी समजले.' मला चालेल तुम्ही मला घराबाहेर जाण्यापासून थांबवल, विचारपूस केली तर माझी काहीही हरकत नाही अस म्हणून बाबा व मी घरी गेलोत.

**समृद्धी बागल**  
F.Y.J.C.

## स्वच्छ भारत श्रेष्ठ भारत

आपण गर्वाने म्हणत असतो, भारत हा “माझा” देश आहे. सारे भारतीय माझे बांधव आहेत माझ्या देशावर माझे प्रेम आहे माझ्या देशातल्या समृद्ध आणि विविधतेने नटलेल्या परंपरांचा मला अभिमान आहे. हे जे आपण सर्वजण मनापासून, हृदयापासून बोलतोय ते आणि ती भावना म्हणजे श्रेष्ठ भारत. जगातील मोठ्या आठ पंथांपैकी प्रत्येक पंथ गुण्या गोविंदाने हसत खेळत एकत्र भावनेने राहतो ना, तो म्हणजे श्रेष्ठ भारत. शंभरहून अधिक नृत्यप्रकार, हजारहून अधिक भाषा एकत्र एका लोकशाहीत वावरतात हा म्हणजे श्रेष्ठ भारत.

१५ ऑगस्ट १९४७ रोजी आपल्याला स्वतंत्र मिळाल आणि २६ जानेवार १९५० रोजी आपण लोकशाही स्विकारली. प्रामुख्याने लोकशाहीचे तीन महत्त्वाचे आधारस्तंभ आहेत ते म्हणजे सनदी सेवा, विधिमंडळ, न्यायपालिका व प्रसार माध्यम या चार मुलभूत स्तंभावर आपली लोकशाही उभारली आहे आणि गेल्या ७० वर्षे सुरु आहे. आपले राष्ट्रपिता म्हणतात की स्वच्छता ही श्रेष्ठत्वापैकी महत्त्वाचे एक लक्षण आहे. जर आपल्याला श्रेष्ठत्व पाहिजे असेल तर स्वच्छता ही असलीच पाहिजे, ती स्वच्छता मानवी असली पाहिजे, ती स्वच्छता शारिरीक असली पाहिजे, ती स्वच्छता मनाची असली पाहिजे. आपण सर्वजण आज २१ व्या शतकात वावरत आहोत. आपल्या भारत देशामध्ये या मुलभूत तीन स्तंभामध्ये प्रामुख्याने पुर्णपणे स्वच्छता दिसून येत नाही. आपण श्रेष्ठ भारतात राहतो हे आपण सर्वजण विसरलो आहे. विधानसभेत लोकांचे नेतृत्व करायला गेलेला माणूस हा स्वतःचे स्वार्थ जास्त बघतो. आज काय ‘आदर्श’ घोटाळा तर कुठे ‘कोळसा’ घोटाळा तर दुसऱ्या राज्यात उर्जा मंत्रीचा घोटाळा असे एक ना अनेक घोटाळे दिसतात. ही आपल्या पात्र नसलेल्या मानसिकतेने लावलेली श्रेष्ठ भारताला किड आहे. सनदी सेवेतील अधिकारी भारतासाठी पुर्ण जीवन व्यतित करीन अशी शपथ घेतात व त्यातील जवळपास सगळेच ती निभावण्याचा प्रयत्न करतात पण काही लाचारी, उदारी, वशिला अशा अनेक मार्गामार्फत स्वतःच्या कमजोर मानसिकतेचे दर्शन देतात. त्यामुळे कुठेतरी आपला भारत देश स्वच्छ होत नाही. न्यायपालिकेत सुद्धा अशा गोष्टी घडण्याचे प्रमाण वाढले आहे हे असे का ? भारत स्वतंत्र होण्यासाठी स्वतःच्या जिवाची पर्वा न करता लढणारे भगतसिंग, राजगुरु, सुखदेव, अष्टखुल्लता, लोकमान्य टिळक, सावरकर, महात्मा गांधी असे एक ना अनेक भारतीय नागरिक म्हणजे श्रेष्ठ भारत हे आपणास का उमजत नाही. याकडे आजच्या तरुणाने लक्ष दिले पाहिजे. आपला भारत देश हा तरुणांचा देश आहे. स्वच्छता हा ज्वलंतपणाचा विषय आहे आपण सर्वजण युवा आहोत. युवा म्हणजे चुकी करायची नाही आणि केलेल्या चुकीला माफी नाही हे ध्यानात ठेवून अस्वच्छता निर्माण करण्याविरुद्ध आवाज उठविणारा व स्वतः स्वच्छता ठेवण्याचा प्रयत्न करणारा.

मानसिक स्वच्छतेबरोबर शारिरीक व भौगोलिक स्वच्छता सुद्धा जपणे फार महत्त्वाचे आहे. कचरा न करणे. सार्वजनिक ठिकाण आपल स्वतःचे घर समजून स्वच्छ ठेवणे हे आपले कर्तव्य आहे. भारत सरकारने यासंदर्भात अनेक योजना आखल्या आहे. २०२० पर्यंत विकसनशील अशा आपल्या देशाला विकसीत करण्यासाठी स्वच्छता फार महत्त्वाची आहे. भारत अभिमान, गंगा शुद्धीकरण, प्रत्येक घरात शौचालय या अशा अनेक महत्त्वाच्या योजनांमध्ये

सरकार पुढाकार घेत आहेत. त्या आपण आपल्या स्थावर राबवल्या पाहिजेत, त्याला मदत केली पाहिजे वसुंधरेने दिलेला हा भारताचा आपल्याला भाग सुंदर सुशिल बनवण्याचा प्रयत्न केला पाहिजे तर श्रेष्ठ भारत पुन्हा एकदा आपल्याला दिसून येईल. साधी आणि सरळ गोष्ट आहे. दोन जिने आहेत. एक त्यातील जिना स्वच्छ, चकाचक आहे आणि दुसरा जिना घाण, थुंकीने भरलेला आहे. सहाजिक स्वच्छ जिन्यावर थुंकण्यासाठी कोणताही माणूस दहा वेळा विचार करेल व फार एखादा निर्लज्य थुंकलेली पण घाणेरड्या जिन्यावर थुंकायला, कोणताही माणूस न विचार करता थुंकेल. तर हा विचार करायला लावण हा श्रेष्ठत्वाच्या दृष्टीने पहिले पाऊल असते. त्यासाठी आपण विचार केला पाहिजे. विकासामध्ये स्वच्छता फार महत्वाचा मुद्दा आहे त्याकडे श्रवस्वप्रती लक्ष दिले पाहिजे.

१००% अस्वच्छता आहेच. कुठेतरी घाणेरडेपण आहे. भारत सदैव स्वतंत्र असावा अस स्वप्न, प्रत्येक क्षणोक्षणी, रक्तारक्तात पाहणाऱ्याच्या त्या स्वातंत्र्यसैनिकांना, शहिद जवानांना, देश पोसणाऱ्या शेतकऱ्याला, सिमेवर देशाचे रक्षण करणाऱ्याला समाधानी करायच असेल तर ही शारिरीक मानसिक भौगोलिक अस्वच्छता आपण सर्वांनी स्वतःपासून प्रयत्न करून दूर राहिली पाहिजे. कुणी तरी महान व्यक्तीने म्हटले आहे की मुश्किलींसे भाग जाना आसान होता है, हर एक पैलू जिंदगी का नया इम्तहान होता है ।

डरनेवालोंको कुछ नहीं मिलता, जिंदगी में कोशिश करनेवालोके कदमोमे जहा होता है । ही कोशिश ! या संघर्षाने आपण आपला भारत देश स्वच्छ व श्रेष्ठ बनवू जय हिंद !

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## भारताचा विकास हा कृषीक्षेत्रावरच आधारित आहे

जेवणापुर्वी आपल्या मनात एकदातरी विचार येतोच की हे अन्न मी का सेवन करीत आहे? त्याचे उत्तर जगण्यासाठी. मग का जगत आहे? तर एका भारतीय नागरीकांचे उत्तर हे "देशसेवा" की जी स्वतःपासून सुरु होते त्यासाठी जगत आहे. म्हणून भारताचा विकास हा कृषीक्षेत्रावर आधारित आहे. जवळपास १० वर्षे झाली आपण म्हणताय की विकास झाला नाही. का तर जास्त प्रमाणात लोकसंख्या ही शेतीवर अवलंबून आहे आणि वार्षिक उत्पन्न हे कृषीक्षेत्राच फारच कमी आहे. मला सांगायला आवडेल की ६० ते ६५% लोकसंख्येला रोजगार हे कृषीक्षेत्र देते. प्रामुख्याने उत्पन्न हे काही एका क्षेत्राच स्वयंघोषी काम नसत तर असलेल्या कृषी, दुसरे तंत्रज्ञान व तिसरे सेवा या तिन्ही विभागाचे मिळून उत्पन्न येत असतं.

मला मान्य आहे की १५ ते २०% उत्पन्न हा प्रथम क्षेत्राचा म्हणजेच कृषीक्षेत्राचा आहे. पण त्यामागील कारणांही तशीच आहेत. शेतकऱ्याला मिळणाऱ्या सेवांच्या किंमती ह्या फारच तुलनेने जास्त आहेत मग त्यामध्ये मानवी शक्तीपासून ते ट्रॅक्टर, खत व बी-बियाणे ! पण त्यांना मिळणारा हमी भाव हा त्यादृष्टीने फार कमी आहे. आपल्याला याकडे लक्ष दिले पाहिजे. शेतीवर ०% कर आहे, हा नकारार्थी नसून ६०% ते ६५% लोकसंख्येला स्वतःचा नफा वाढविण्याच्या दृष्टीने हे महत्त्वाचे साधन आहे. मला अस वाटत की ही फुल ना फुलाची पाकळी म्हणून उभ्या जगाचा पोशिंदा असलेल्या कृषीक्षेत्राला भेट आहे.

मजा अशी आहे की लोकसंख्येचा कल ज्या बाजूत असेल त्या बाजूने त्या मुद्द्याने विकास करणे खूप सोयीचे पडते. जर ६०% ते ६५% भारतीय लोकसंख्या कृषीवर अवलंबून असेल तर आपण त्याकडे पाहिलच पाहिजे. मला अस वाटत तंत्रज्ञान व सोयी-सुविधा क्षेत्र हे कृषीक्षेत्रात मिसळून गेले पाहिजे. एका विशिष्ट स्तरापर्यंत त्यांच्या क्षेत्रात प्रगती करून ते कसे, तर जस तुम्ही म्हणालात की लोकसंख्या वाढतेच म्हणून प्रत्येक शेतकऱ्याला जमिन एकरीतून पुढच्या पिढीला होते. तर त्यासाठी सेवा व सुविधा क्षेत्राने असलेल्या कायदा व सुव्यवस्था यासंदर्भात पाऊले उचलली पाहिजेत. तसेच ग्रीन शेड की जे एकरीचे उत्पन्न गुंड्याएवढ्या भागात आणु शकते त्याकडे तंत्रज्ञान क्षेत्राने वाटचाल केली पाहिजे. कृषी विभाग हा जलसिंचनावाचून कधीच मजबूत नसतो. भारतामध्ये जलसिंचन टक्का हा फारच कमी आहे ते मान्य आहे. पण त्यादृष्टीने तातडीने पाऊलसुद्धा उचलली गेली आहे. मग त्यामध्ये विहीर प्रकल्प शेततळे तसेच ढिबकसिंचन प्रकल्पामध्ये जवळपास ५०% अनुदान देवून त्यामध्ये प्रगती करण्याचा प्रयत्न सुरु आहे. तसेच बारामाही उत्पन्न कसे घेता येईल त्याकडे बारकाईने लक्ष दिले जात आहे. या सर्वांमुळे एकंदरीत वनस्पतीची संख्या वाढते. कार्बनडायऑक्साईड शोषण जास्त होते.

साहजिकच हरितगृह वायुचे प्रमाण वाढत चालले आहे व प्रत्यक्ष अप्रत्यक्षपणे राष्ट्रीय तसेच आंतरराष्ट्रीय स्थरावर चाललेल्या प्रदूषणमुक्त वसुंधरेसाठी आपण कर्तव्य बजावत राहिले पाहिजे, प्रश्न मान्सूनचा असेल तर डर्विनच्या सिद्धांतानुसार काळ हा बदलत जातो तसेच मान्सून ही बदलणार. पण आजसुद्धा पूर्ण मान्सूनचा उपयोग होत नाही. जर वनस्पती वाढल्या तर माती अजून घट्ट होईल. मूळ पाणी थांबवून ठेवतील आणि हे आपल्या वातावरणासाठी खूप महत्त्वाचे आहे. वैश्विक तापमानात वाढ होऊ नये ह्यासाठी आपण प्रयत्न करत आहेत. त्या दृष्टीने हे खूप महत्त्वाचे आहे.

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**पाणी हेच जीवन**

आपल्याला माहीत आहे की, पृथ्वीवर पाणी फक्त ३% राहिलेले आहे, बाकी ९७% पाणी हे खारे पाणी आहे आणि ते सागर, महासागर या ठिकाणी पाहायला मिळते. आपल्याला पिण्याचे पाणी नद्या, नाले, तलाव यापासून मिळते. तसेच भूगर्भातून सुद्धा मिळते. दिवसें दिवस भूगर्भातील पाण्याची पातळी ही खालावत चाललेली आहे. कारण जास्तीत जास्त पाणी भूगर्भातून काढले जाते. माणसाच्या शरीरात पाण्याचे प्रमाण जास्त असते म्हणजेच शरीराचा २/३ भाग पाणीच असतो. एका व्यक्तीला एका दिवसात २.८२ लिटर पाणी खाण्यापिण्यात, जेवणात घ्यायला पाहिजे तरच त्याचे आरोग्य व्यवस्थित राहील. माणसाला एक महिना जेवण मिळाले नाही तरी सुद्धा तो जगू शकतो. परंतु पाणी न मिळाल्यास तो ५ ते ७ दिवसापेक्षा जास्त जगू शकत नाही.

आपल्या देशामध्ये प्रत्येक व्यक्तीमागे कमीत कमी १४० लिटर पाणी उपलब्ध केले जाते. जागतिक स्वास्थ्य संघटनेच्या शिफारशीनुसार प्रत्येक व्यक्तीला २०० लिटर पाणी उपलब्ध केले पाहिजे. पाणी आंधोळीसाठी, कपडे धुण्यासाठी, साफ सफाई आणि इतर कार्यासाठी लागणार असेल तर प्रत्येक व्यक्तीमागे ३१० लिटर पाणी मिळणे गरजेचे आहे. वाढत्या लोकसंख्येसाठी कमीत कमी ३२ कोटी टन खाद्यपदार्थांची गरज भासेल. भविष्यामध्ये हे खाद्य पदार्थ तयार करण्यासाठी पाण्याची आवश्यकता तेवढ्याच पटीने लागेल आणि जमीन सिंचनासाठी जेवढे पाणी आपण भूगर्भातून काढू तेवढीच भूगर्भातील पाण्याची पातळी खालावणार आहे. गरमीचे दिवस चालू झाले की तलाव, नद्या सुकतात, विहीरी आटतात, झाडे सुकतात आणि अशाच वेळी पाऊस कमी पडला की संकटे वाढतात. महत्वाची गोष्ट अशी की भारतातील कृषीक्षेत्र हे अमेरिकेच्या कृषीक्षेत्रापेक्षा दुप्पट आहे. परंतु आपले उत्पन्न अर्धे आहे हे यामुळे की पेरलेल्या किंवा लागवड केलेल्या जमिनीवर फक्त २५% पाणी वापरले जाते. त्याचप्रमाणे वीज, उद्योगासाठी पाण्याची आवश्यकता असते. भारतामध्ये एकूण महत्वाच्या ५८ नद्या आहेत. त्यातील १५ नद्या खूप मोठ्या तर ४४ नद्या ह्या छोट्या आहेत. देशातील या संकटाला एका पातळीवर कमी करता येणे शक्य आहे. जसे नद्यांच्या प्रवाहाची दिशा बदलून, त्यांना ऐकमेकांशी जोडून देशातील सर्वच भागात पाणीपुरवठा होऊ शकेल.

आम्ही पावसाच्या पाण्यावर अवलंबून असतो म्हणून पावसाचे पाणी वाहून वाया जाण्यापेक्षा त्या वाहत्या पाण्याला बांध घालून, तलाव बनवून साठविले, एकत्र केले तर इतर कार्यासाठी त्यांचा उपयोग आपल्याला होऊ शकतो. ज्या ठिकाणी पाण्याची पातळी खालावलेली आहे अशा ठिकाणी पाण्याचा साठा तलावाद्वारे केला पाहिजे. नवीन तलाव बनवत असतानाच, जुन्या तलावांची खोलीसुद्धा वाढवायला पाहिजे, म्हणजे आपल्याला पाण्याचा जास्तीत जास्त साठा करता येईल. अशा वेळेस भूगर्भ वैज्ञानिकांची आणि इंजिनियर यांची मदत घेणे आवश्यक आहे. कारण ज्या ठिकाणी आपण पाण्याचा साठा करणार आहोत, त्या ठिकाणची माहिती आपल्याला नसेल तर साठवलेले पाणी काही दिवसातच दूषित होईल अथवा जमिनीत मुरले जाईल. यासाठी पाण्याला अशा ठिकाणी एकत्र केले जाऊ शकते. ज्या ठिकाणी ते पावसाच्या रुपात पडते. असे पाणी जे आपण एकत्र करून साठवू शकतो. पाणी एकत्र करण्यासाठी सरकारकडून केलेले प्रयत्न अत्यंत तुलानात्मक आहेत. अनेक शाळा, कॉलेज, कॉलनी आणि काही संस्थांमध्ये पाणी एकत्र करण्यासाठी १० ते १२ फूटांचे खड्डे खोदलेले आहेत व त्या ठिकाणी पावसाचे पाणी एकत्र केले जाते. ह्या

पाण्याचे संरक्षण करण्यासाठी प्रत्येक व्यक्तीची भूमिका महत्वाची ठरणार आहे.

प्रत्येक कार्यानुसार पाण्याचा योग्य वापर करणे, उदारणार्थः

- १) गाडी धुतांना पिण्याचे चांगले पाणी वापरणे आवश्यक नाही.
- २) दात स्वच्छ करत असतांना पाण्याचा नळ चालू ठेवू नये.
- ३) आंघोळ करत असतांना पाण्याचा वापर व्यवस्थित केला पाहिजे. भाजी, फळे, तांदूळ धुतल्यानंतर ते पाणी झाडांना घालावे.
- ४) वॉशिंग मशिनने कपडे धुतल्यानंतर राहिलेल्या पाण्यात लादी साफ करायला पाहिजे.
- ५) काम संपल्यानंतर पाण्याचा नळ व्यवस्थित बंद केला पाहिजे.
- ६) घरातील साफसफाई नळाला पाईप लावून पाईपातून येणाऱ्या पाण्याद्वारे करू नये. त्यासाठी झाडूचा वापर करावा. पाणी कमी लागेल.
- ७) भांडी साफ करतांना, कपडे धुतांना नळ चालू ठेवू नये त्यासाठी वेगळी बादली घेऊन कपडे धुवावेत.

लक्षात ठेवा आपल्या घरामध्ये, शाळा, कॉलेज, सार्वजनिक संडासमध्ये, शेजारच्या नळातून, कुठेही पाणी वाया जात असेल अथवा पाइप खराब झालेला असेल तर लगेच प्लंबरला बोलावून दुरुस्ती करून घ्यावी. पाण्याचे संकट फक्त भारतातच नाही, तर संपूर्ण जगामध्ये आहे. म्हणून संपूर्ण जगाला या संकटातून वाचवायचे असेल तर अथक प्रयत्न केले पाहिजेत कारण ही भविष्यात सर्वात मोठी गरज आहे. म्हणून आपण सर्वांनी एकत्र येऊन पाण्याच्या या उधळपट्टीला आळा घालू या आणि आपल्या भविष्याला सुरक्षित करू या.

डॉ. प्रा. प्रकाश माळी  
रसायनशास्त्र विभाग



## शिक्षा की वर्तमान स्थिति और विद्यार्थी

वर्तमान में शिक्षा-प्रणाली का अर्थ है शिक्षा देने की पद्धति वर्तमान शिक्षा प्रणाली से अभिप्राय है शिक्षा का वह ढाँचा, जो आजकाल हमारे स्कूलों और कॉलेजों में प्रचलित है। हमारे देश की शिक्षा प्रद्धति चली आ रही है, उसमें अनेक सुधारों की आवश्यकता है। आज जिस तरह से हमारे महाविद्यालयों और कॉलेजों में शिक्षा दी जा रही है, यह भारतीय प्रणाली नहीं है।

प्राचीन काल में हमारा देश अपनी विद्या और ज्ञान के लिए प्रसिद्ध था। दूर-दूर के देशों से लोक शिक्षा प्राप्त करने के लिए आया करते थे। यहाँ बड़े-बड़े विश्वविद्यालय थे जिनमें से तक्षशिला, नालंदा और विक्रमशिला का नाम तो प्रायः सभी जानते थे। अंग्रेजों के आने से पूर्व ही यह शिक्षा प्रणाली प्रायः समाप्त हो चुकी थी। परन्तु वर्तमान शिक्षा-पद्धति की अपनी उपयोगिता भी है। इसमें विभिन्न विषयों के अध्ययन से छात्रों को अनेक विषयों का आरम्भिक ज्ञान अवश्य प्राप्त होता है। भारत में गुरुकुल-काल में विद्यार्थियों को अधिक विषय नहीं पढ़ाए जाते थे। गुरुकुल से विद्यार्थी विद्वान बनकर तो निकलते थे परन्तु वह एकाध विषय में ही प्रकांड पंडित होते थे। वर्तमान शिक्षा-पद्धति में अनेक विषयों का ज्ञान प्राप्त करके छात्र अपनी रुचि-अनुसार अपने भविष्य के मार्ग निर्धारित कर सकते हैं। वर्तमान शिक्षा प्रद्धति में एक तो छात्रों को विभिन्न भाषाओं का ज्ञान प्राप्त होता है, जिससे उन्हें अपने विचारों को अवसर देने मिलता है। विभिन्न एवं आंतराष्ट्रीय भाषाओं के द्वारा छात्रों का दूर-दूर तक अपनी प्रतिभा दिखाने का भी अवसर मिलता है।

शिक्षा का उद्देश्य क्या है ? यदि इस प्रश्न पर विस्तार से विचार किया जाए तो आधुनिक शिक्षा -प्रणाली से इसका कोई संतोष जनक उत्तर नहीं मिलता। आज के शिक्षा विषय तज्ञ कहते हैं कि शिक्षा का उद्देश्य बालक के व्यक्तित्व का बहुमुखी विकास करना है, पर विश्वविद्यालयों और विद्यालयों के शिक्षाक्रम तथा विद्यार्थियों की रुचि देखने से तो प्रतीत होती है कि इसका उद्देश्य नौकरी तक ही सीमित रह गया है। विद्यार्थी परीक्षार्थी बन गए हैं। सभी का यही धुन रहती है कि किस तरह अमुक परीक्षा पास कर ली जाए और उसके बाद अमूक नौकरी मिल जाए तो हमारी मेहनत सफल होगी।

आज का शिक्षित अपने आपको न जाने क्या समझने लगा है मजदूरी से उसे नफरत है। खेतीबारी, दुकानदारी आदि माता-पिता-दादा के धंधे से अपने मान के अनुकूल नहीं प्रतीत होते। संक्षेप में, आज की शिक्षा-प्रणाली हमारे अच्छे गुणों का विकास न करके, हम में झूठा अभिमान पैदा कर रही है। विद्या से प्राप्त होनेवाली नम्रता उसमें नहीं है। देश के नेताओं, विद्वानों और शिक्षा शास्त्रियों का जितना इस विषय में चिंतन करना चाहिए था, वे उतने चिंतित प्रतीत नहीं होते। आचार्य विनोबा भावे के शब्दों में "सेना पर आठ सौ करोड़ रुपया खर्च होता है, यह भी मुझे उतना खतरनाक नहीं मालूम होता, जितनी खतरनाक आज की शिक्षा-प्रणाली मालूम होती है।"

वर्तमान शिक्षा-पद्धति में वैज्ञानिकों ने अनेक तरीकों को अपनाकर इसे अधिक उपयोगी और सरल बनाने का भी निरन्तर प्रयत्न किया जा रहा है। आज रोजगार के विभिन्न क्षेत्रों में कम्प्यूटर एक आवश्यक अंग बन गया है।



अन्य व्यावसायिक प्रशिक्षण के अलावा कम्प्यूटर को भी प्रशिक्षण कार्यक्रम में सम्मिलित किया गया है, ताकि अधिकाधिक छात्रों का रोजगार के अवसर प्राप्त हो सका ।

वर्तमान शिक्षा-पद्धती के सम्बन्ध में ऐसा माना जाता है कि इससे छात्रों को जीवन में विशेष लाभ नहीं होता । उनके पास प्रमाण-पत्र तो होते हैं, पर योग्यता नहीं होती । यह सत्य है कि वर्तमान शिक्षा पद्धती में अभी सुधार की आवश्यकता है । परन्तु यह भी सत्य है कि इसी शिक्षा पद्धती ने हमारे देश को हजारों, डॉक्टर, इंजिनीअर, अध्यापक, प्रोफेसर, वैज्ञानिक, लेखक, पत्रकार आदि दिए हैं । वास्तव में यह विद्यार्थी पर निर्भर करता है कि वे उपलब्ध शिक्षा-पद्धती से कितना अधिक ग्रहण करने में सक्षम हैं । शिक्षा को बोझ समझने वाले विद्यार्थी विषयों को रटकर अथवा नकल के द्वारा केवल उत्तीर्ण होने का प्रयास करते हैं । ऐसे छात्र किसी भी विशेष ज्ञान अर्जित करने में असफल रहते हैं । यही कारण है कि उनके पास प्रमाण-पत्र तो होता है, परन्तु योग्यता नहीं होती ।

आज जिन लोगो के हाथ में शासन है, यदि ठीक समय पर उन्होंने शिक्षा-प्रणाली में क्रांतिकारी परिवर्तन न किए तो हमारा लोकतंत्र खतरे में पड़ जाएगा लोकतंत्र की सफलता इसी में है कि देश की जनता शिक्षित हो और अपने मत का मूल्य समझे।

वर्तमान शिक्षा-प्रणाली को सुधारने के लिए निम्नलिखित बातों को अपनाना आवश्यक होगा (क) विद्यालयों में पढ़ाए जानेवाले विषयों का दैनिक जीवन में महत्वपूर्ण स्थान हो । उन विषयों की जीवन में उपयोगिता ताकि शिक्षा समाप्त होने के पश्चात आजीविका पैदा करने में उन विषयों से कुछ सहायता प्राप्त हो सके ।

(ख) शिक्षा-क्रम में औद्योगिक तथा शिल्प संबंधी विषयों का स्थान हो, जिनसे शिक्षा और प्रतिदिन के जीवन के कामों में निकटता बना रहे ।

(ग) शिक्षा में शारीरिक परिश्रम संबंधी विषयों का स्थान हो, जिससे सभी वर्ग के विद्यार्थी लाभ उठा सकें ।

(घ) शिक्षा का माध्यम मातृभाषा हो । सभी विषयों को आजकल अंग्रेजी भाषा में पढ़नेवाले विद्यार्थी पचास प्रतिशत बातें तो इसलिए नहीं समझ पाते कि विदेशी भाषा में उन्हें अपने विषय पढ़ने होते हैं ।

‘कोठारी आयोग’ की सिफारिशों को भारत सरकार ने १९७८ में स्वीकार किया था । उसके अनुसार १०+२+३ की प्रणाली पहले दिल्ली राज्य में लागू की गई । इस में विद्यार्थी के बहुमुखी विकास की व्यवस्था की गई थी । इसमें हाथ के काम, विज्ञान की शिक्षा आदि पर बल दिया गया है ।

विद्यार्थियों को वर्तमान शिक्षा पद्धती में ही अपने लिए सम्भावनाओं की खोज करनी होगी । अपनी प्रतिभा से विद्यार्थी स्वयं अपने लिए उपयोग मार्ग का चयन कर सकते हैं । यह सत्य है कि कठिन परिश्रम से प्रतिभाओं को उभरने का अवसर अवश्य मिलता है । अब यह प्रणाली पूरे देश में लागू की जानी चाहिए । आशा है, इससे हमारी शिक्षा पद्धती समय के अनुकूल सही सिद्ध हो सकेगी ।

**रोहित पाण्डे**  
S.Y.Bsc

“तमसो मा ज्योतिर्गमय” अर्थात अंधकार से मुझे प्रकाश की ओर ले जाओ – यह प्रार्थना भारतीय संस्कृति का मूल स्तंभ है। प्रकाश में व्यक्ति को सब कुछ दिखाई देता है, अंधकार में नहीं। प्रकाश से यहाँ तात्पर्य ज्ञान से है। ज्ञान से व्यक्ति का अंधकार नष्ट होता है। उसका वर्तमान और भावी जीने योग्य बनता है। उसकी कार्यक्षमता बढ़ती है। जो उसके जीवन को प्रगति पथ पर ले जाती है।

शिक्षा सभी के लिए आवश्यक है। स्त्री शिक्षा तो समाज में आवश्यक ही नहीं, अनिवार्य होनी चाहिए। मानवीय संसाधनों के संपूर्ण विकास, परिवार एवं राष्ट्र के सुधार, बच्चों के चरित्र-निर्माण, पति के आर्थिक सहयोग एवं स्वयं के उत्थान के लिए नारी शिक्षा का बहुत महत्व है। एक पुरुष की शिक्षा का अर्थ है एक व्यक्ति विशेष की शिक्षा है जबकि एक नारी के शिक्षा का अर्थ है एक पूरे परिवार की शिक्षा।

नारी शिक्षा का प्रत्येक क्षेत्र में महत्व है फिर चाहे वह बेटी, बहन, माँ या पत्नी हो क्यों न हो। बहन व बेटी के रूप में शिक्षित नारी अपने परिवार की आर्थिक मदद कर सकती है। शिक्षित नारी जागरूक भी होती है इसलिए वह कोई भी अनैतिक काम करने के विषय में नहीं सोचती। तीसरे वह अपने भाई तथा पिता पर बोझ नहीं बनती क्योंकि वह अपने पैरों पर खड़ी होकर आसानी से सुयोग्य पति का चयन कर सकती है।

शिक्षित पत्नी तो परिवार के लिए वरदान होती है। वह सुख शांति व ऐश्वर्य की वर्द्धक होती है। वह कलह की विरोधिनी बनकर घर में प्यार व खुशी का सागर बहाती है। इस प्रकार पत्नी के रूप में एक स्त्री बहुत महत्वपूर्ण भूमिका निभाती है। वह विवाह करके एक नए वातावरण में नए-नए लोगों के साथ रहती है। जब तक वह अपने पति के विचारों को ही नहीं समझेगी तब तक वह परिवार को एक सूत्र में नहीं बांध सकती तथा यह कार्य एक सुशिक्षित, समझदार एवं सुयोग्य नारी ही कर सकती है। वह जोड़ने में विश्वास रखती है न कि तोड़ने में। माता के रूप में तो नारी शिक्षा का महत्व कई गुना बढ़ जाता है। क्योंकि बच्चे माँ जैसे ही बनते हैं। माँ ही बच्चों की सही परवरिश करती है, पिता तो अधिकतर समय काम के सिलसिले में बाहर ही व्यतीत करते हैं। इस परिस्थिति में नारी ही बच्चों की प्रथम ‘गुरु’ होती है। माँ के व्यवहार, संस्कार आदि का सीधा प्रभाव बच्चों के कोमल एवं उर्वर मन-मस्तिक में उन समस्त संस्कारों के बीज बो सकती है। जो आगे चलकर उसमें सामाजिक, आत्मिक एवं राष्ट्रीय उत्थान के लिए परमावश्यक है। हमारे वेद-पुराण ऐसी अद्भुत माताओं के चमत्कारों से भरे पड़े हैं, जिन्होंने अपने बच्चों को समाज में विशेष स्थान दिलवाया है। अभिमन्यु ने माँ के गर्भ में ही चक्रव्यूह को तोड़ने की शिक्षा ले ली थी। शिवबा को ‘शिवाजी महाराज’ बनाने में उनकी माता जीजाबाई का विशेष योगदान था। अतः माताओं का शिक्षित होना देश, समाज, परिवार, राष्ट्र सभी के लिए हितकर है।

स्त्री के अशिक्षित रहने पर संसार की अधिकांश जनता अशिक्षा के अंधकार में भटकती रह जाएगी। शिक्षा के अभाव में लोगों की मानसिक व बौद्धिक शक्तियों का विकास रुक जाएगा। अशिक्षित नारी स्वयं को समाज के नियम कायदों के अनुकूल नहीं ढाल सकती है। वह अपने को नितांत अकेला पाती है क्योंकि अशिक्षित नारी में तो न आत्मविश्वास होता है, न ही आत्मनिर्भरता, न आत्मसंयम होता है, न ही आत्मसम्मान। ये गुण तो अंधविश्वासों, कुरितियों, जादू-टोनों बुराईयाँ आदि की उपासिका होती है। अशिक्षित नारी का जीवन सर्वत्र अंधकामय होता है। अशिक्षित नारी विवाह पूर्व पिता तथा भाइयों पर बोझ बनकर रहती है तो विवाह के पश्चात पति सास-ससुर की

अवहेलना झेलती है तथा बुढ़ापे में बच्चों के तिरस्कार का पात्र बनती है। कारण वह स्वयं अपनी रक्षा नहीं कर सकती इसलिए इस दुनिया में सम्मान पाने के लिए शिक्षित होना आवश्यक है।

नारी को आदि-शक्ति का प्रतीक माना गया है। पुरुष और स्त्री गृहस्थी की गाड़ी के दो पहिए होते हैं। पुरुष पढ़ा-लिखा हो और नारी आशिक्षित हो, तो दोनों पहियों में तालमेल नहीं बैठ पाता। अतः यह जरूरी है कि जीवनरूपी गाड़ी का नारी-रूपी पहिया भी पुरुष-रूपी पहिए के बराबर हो। अर्थात् स्त्री भी पढ़ी-लिखी हो। अगर एक पक्ष कमजोर रहा, तो संतुलन बिगड़ जाएगा।

शिक्षित नारी प्रत्येक स्थान पर सम्मान की पात्र बनती है। वह कुरीतियों तथा अंधविश्वासों के स्थान पर वैज्ञानिक तथ्यों पर विश्वास करती है, तथा प्रगति की राह पर अनवरत रहती है। नारी शिक्षा का ही परिणाम है कि आज प्रत्येक सरकारी व निजी संस्थान में नारियों बड़ी कुशलतापूर्वक कार्यरत हैं। वे प्रत्येक क्षेत्र में अपनी योग्यता प्रमाणित कर रही हैं। शिक्षित नारी अपना पारिवारिक जीवन स्वर्ग बनाकर देश, समाज व राष्ट्र की प्रगति में पुरुषों के कंधे से कंधा मिलाकर आगे बढ़ रही है। आज की शिक्षित नारी नौकरी कर अपने परिवार की आर्थिक सहायता कर रही है। अध्यापिका बनकर राष्ट्र को शिक्षित कर रही है। लिपिक बनकर कार्यालय कार्य संचालन में सहयोग दे रही है तो विधिवेता बनकर समाज को न्याय प्रदान कर रही है।

राष्ट्र के उद्धार के लिए समाज-सुधारकों ने भी स्त्री-शिक्षा को अनिवार्य बताया है। उनके अनुसार एक स्त्री का सुशिक्षित करना सारे परिवार को सुशिक्षित करने के बराबर है।

खुशी की बात तो यह है कि नारी शक्ति अब जाग उठी है। आज की नारी स्वयं शिक्षा के प्रति जागरूक हो गई है। नारी के शिक्षित होने से समूचे विश्व का मंगल होगा। आज हमारी सरकार भी स्त्रीशिक्षा के महत्व को भलीभाँति समझ चुकी है तभी तो आज मुक्त कंठ से यही नारा लगाया जा रही है - “पढ़ी लिखी लड़की, रोशनी घर की”।

**समिर झा**

XI - D

## **Girls Are You Aware??**

Most of the girls feel shy or uncomfortable when they have to speak on the topic breast. The strongest person in the world is a girl. Most of the time girls ignore their health problems. Sometimes ignoring a problem related to breast may have an unexpected effect on one. So here we start "Fibroadenoma ". It's a condition in females mostly who are below 20 shows presence of lumps in breast. The lumps may be bigger or smaller in size. Depending on size they are classified into various types. The reason behind formation of lumps is increase in estrogen. It is a group of mass collectively called proliferative lesions. Fibroadenoma lumps can be removed by different types of surgeries. As mentioned earlier, there are different types of Fibroadenoma. Simple Fibroadenoma are not cancerous. A girl has higher chances to suffer from breast cancer if suffering from complex fibroadenoma conditions. Excess hair fall, weakness, bigger lumps are few symptoms of breast cancer. Treating fibroadenoma is must. You can't allow it to grow as it causes pain in breast and is also a reason behind weakness. Increase in age increases the risk of breast cancer in females. Some symptoms are lumps in breast, obesity etc.

Treating a cancer is not easy. Our health is in our hand. Fibroadenoma and cancer both are mostly inherited within a family. Woman is the most important part of the family if she suffers whole family suffer. It's not easy to deal with cancer and its therapy. A female suffering leaving her shyness behind and must freely discuss her problems related to breast. So that it is diagnosed and cured at earlier stage. There are many breast related issues but most commonly seen in young female is fibroadenoma and breast cancer which is a serious topic to discuss on. Many researches are carried out to cure fibroadenoma but the lumps in breast need to be operated as they can't be cured just by medicines, out of eight women only two women suffer from such painful issues.

For this, a female has to be saluted because dealing with breast is like dealing with heart. Looking forward for research that can cure the Fibroadenoma.

**Dipti Dudhade**  
S.Y. Bsc.

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## **Deepa Malik - An inspiration to the youth!**

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Deepa Malik is an Indian athlete. She was always considered to be like the burning lava. As none of the biggest injuries could dim her spirit. When her husband was serving for our nation in Kargil, she underwent 163 stitches between her shoulder blades. She is a real-life inspiration.

At the Rio Paralympics, Deepa bagged a silver medal in shotput. Since the age of 26, she has been dodging between life



and death. At the age of 8, She was a young sports woman and cricketer she suffered from paralytic shocks. In 2006, in spite of seven broken vertebrae she was in the race of throwing javelin. In 2010, she was successful in Para Asian Games as well as in 2012, she also made a mark in London Paralympics.

Deepa Malik, the mother of two, overcame a spinal tumor, 31 surgeries and 183 stitches to win India a silver medal at the BPO Paralympics.

Deepa says that she wants to use the medal to support women with disabilities in India. Her journey has been beautiful for her as well as for her entire family. She is proved to be the oldest athlete in the team and won a medal.

Deepa has not only been renowned in athletics but also the woman who rode the first bike adapted for paraplegics, she drove 3000 km from Delhi to Leh and back through the high altitude passes.

Such extraordinary individuals are an inspiration to the youth. Even though she met with so many injuries and problems she never gave up till date. Whereas we people keep complaining with all the best which we are provided with.

**Gayatri Hatkar**  
S.Y. Bsc.

### Indian Football - The Rise



The Indian National Football Team, also famously known as the Blue Tigers are on the rise. India, referred to as the 'sleeping giant of world Football' has finally proven the critics wrong.

The Blue Tigers have continued their impressive climb up the ranking ladder to be placed 96th in the world as per the latest FIFA Rankings update. Indians have risen by four spots after their impressive showing during the international break in June, during the 2019 AFC Asian cup qualifiers group match and the friendly match with Nepal. India currently has 341 rating points, an increase at 10 from their previous tally. As far as Asia is concerned, India is the 12<sup>th</sup> highest ranked team in the continent.

India was ranked 171<sup>st</sup> in the world when Stephen Constantine an Englishman, took charge for a second term back in February 2015. Also the Blue Tigers are praised to seal the qualification to the 2019 AFC Asian Cup along with the dramatic rise in the FIFA Ranking.

It is certainly a 'feather in the cap' for everyone associated with the national team.

However, it falls just short of India's highest ever FIFA ranking of 94, which was in February 1996. Sunil Chhetri is 3<sup>rd</sup> in the world, ahead of England's top individual goal scorer for the National team.

Apart from this large success, India is set to host its very first FIFA tournament in the form of FIFA U-17 World Cup. If the tournament is carried out successfully India would also be ready to host other such FIFA tournaments.

The various on field and off field achievements of Indian Football show that it has improved a lot since the past decade, and would continue to do so in the future as well to make sure that India's Flag is hoisted high in front of the whole world, not only in cricket, but also in Football.

**Indraneel Chippalkatti**  
S.Y.Bsc.

## Super Luxury Trains of India

India being an abode to Royalties & their extravagant lifestyle, we deserve to experience such a high-class treatment at last once in our Lifetime. If the fantasy of travelling back in time & experiencing the grand royalty interest intrigues you, then luxury trains in India might well exceed your expectation.

Managed by the Indian Railways & the IRCTC, there are total of 7 Luxury trains in India.

- 1) The Maharaja's Express
- 2) Palace on Wheels
- 3) The Deccan Odyssey
- 4) Golden Chariot
- 5) Royal Rajasthan on Wheels
- 6) Royal Orient Train
- 7) Fairy Queen Express



One can Experience & explore the rich cultural heritage of India in the lap of Luxury in these trains. The Grandeur of these trains is seen in the majestic ambience, Lavish Gastronomical lane, mind - boggling interiors and everything else you can imagine.

- 1) The Maharaja's Express - Take a royal Journey to India's Top Two destination.

This half-a-mile long train boasts of the highest quality of hospitality, fully stocked bars, Stylish Suits and many more things.

This express is operational from the month of October to April and has 5 different routes spanning over the northern and western India.

The duration ranges from 4-8 days and the cost ranges from INR- 3,00,000 (approx) to INR 5,00,000 (approx).

- 2) Royal Rajasthan on wheels

This train is known for offering supreme quality of comfort and an everlasting travelling experience.

Route - Delhi - Jodhpur - Udaipur – Chittorgarh- Sawai Madhopur-Jaipur- Khajuraho - Varanasi – Agra- Delhi.

### 3) Palace on wheels-

This train was refurbished and relaunched in 2009 to promote tourism. Luxurious cabins, exquisite wall papers well stocked bar, gracious hospitalizing and local culture displayed by artistic use of paintings and handicrafts it is very much like palace on wheels that recreates the bygone era of kings and their royal palaces!

Udaipur - Jaisalmer - Jodhpur - Bharatpur - Agra - Delhi.

This train operates from September to April

### 4) The Deccan Odyssey

It is a 5-star hotel on wheels with multicuisine restaurants, Lounges, conference room, spa etc.

The sojourn places & destinations in Maharashtra, Gujarat, Karnataka and Andhra Pradesh are covered. The trip spans over seven nights and eight days on 6 routes.

### 5) Golden Chariot -

Launched in 2008, this train is known for its impeccable hospitality.

It has AC chambers with royal interiors, bars, multicuisine restaurants, mini-gym, Ayurveda spa etc.

The two routes cover regions of south like Mysore-Hassan -Hampi - Badami - Goa and the other route ie - Chennai – Mahaballi-Puram - Pondichery - Thanjavur - Madurai Thiruvananthapuram - Kochi - Bangalore. This Golden chariot runs from October to March. The charge ranging from 3,50,000+ 4.5% tax

### 6) The Royal Orient Train -

Journey of this train is a combination of absolute chivalry and unimaginable opulence.

Route - Delhi - Udaipur - Veraval - Dilwara Palitana - Sarkhej - Ahmedabad - Jaipur - Delhi. Duration - 7 nights & 8 days.

### 7) The Fairy Queen Express -

The oldest train providing Luxury.

It is powered by oldest serving steam locomotive built in around 1855, the Fairy Queen has its own charm as it rambles through to Alwar in Rajasthan.

It runs from October to March on 2nd & 4th Saturday of the month.

The two-way train Journey with sightseeing costs around 8, 600 + Taxes.

**Chaitra Kulkarni**  
SY Bsc

**NCC Camps**

There are three NCC camps:

- 1. THAL SAINIK CAMP (TSC) - ARMY**
- 2. NAU SAINIK CAMP (NSC) - NAVY**
- 3. VAYU SAINIK CAMP (VSC) - AIR FORCE**

Above all these camps there is one more camp which is considered to be one of the most popular & prestigious camp. It is the **Republic Day Camp (RDC)**.

**1. THAL SAINIK CAMP (TSC)**

The TSC is a 12 days camp conducted in Delhi every year in the late autumn, in which the cadets are selected from all 17 directorates (30+3 SD/JD and SW/JW cadets from each directorate), by the selection procedure conducting 3 pre-TSC camps each of 10–12 days in a week interval. The selected cadets then are sent to the TSC to represent their respective directorates in the following competitions:

- **Obstacle Course** - In which the obstacles include 6-foot wall, zig-zag, double ditch, balancing, 3-foot bar, left bar, right bar, incline, etc. It is done after wearing full tactile gear with rifle.
- **Firing** - It consists of two types - Shooting (Grouping, Snap-Shooting & Application) & Advance Firing (Standing, Kneeling & Lying positions). It is done with a standard .22 caliber rifle at the range of 25 meters & 50 meters.
- **Map Reading** - Which includes working with Prismatic Compass, service protector & a map. It is conducted in the day or at night for finding 'North', 'Grid Positions' & 'Own Position', with the help of landscapes at the unknown location in which cadets are dropped.
- **Home Nursing** - It consists of medical activities, as how to aid & heal a soldier in war.

The directorates also get marks by the inspection of their respective accommodations, dressing and some extracurricular activities by the inspecting squad. Arranging the numbers, the winning directorate gets a cup with decorations from the Director General, NCC on the closing day of the TSC. Two concurrent TSCs are conducted at RD Parade Ground, Delhi Cantt every year. i.e. S D / JD boys and SW/JW girls. 640 Boy and 640 Girls cadets take part in these camps.

**2. NAU SAINIK CAMP (NSC) :-**

NSC is a camp conducted for the navy cadets by NAVAL Wing of NCC. The selection procedure of NSC in MAHARASHTRA DTE is as follows.

After all the unit selections during ATC's the first camp starts in Pune that is Inter Group

**Competition (IGC).**

The events under NSC are:

1. Ship modelling
2. Semaphore
3. Rigging
4. Health and hygiene
5. Boat pulling
6. Whaler rigging
7. First aid
8. Service subject
9. Best cadet
10. Cultural events

After IGC cadets go through rigorous training & filtration process of 30 days that is in Pre NSC-1, PRE NSC-2 & PRE NSC-3. And after going through all these selection procedures, the final team of Maharashtra DTE is selected & is sent to Karwar, Karnataka for competing with the rest of 16 DTE's in NAU SAINIK CAMP (NSC).

**3. VAYU SAINIK CAMP (VSC):-**

VSC is a camp conducted for the navy cadets by AIR Wing of NCC. The selection procedure of VSC in MAHARASHTRA DTE is as follows.

Before selecting Cadets for VSC, a normal CATC camp is done, where in they train the Cadets and select 35 of them to VSC1, which is similar to the Inter group competition, 35 Cadets from each group of MAHARASHTRA DTE takes part in it.

They'll have events like

1. Flying (written exam + practical's)
2. Service subjects (in which all have to give the paper but 1 SD and 1 SW is selected as representatives)
3. Drill competition
4. Health and hygiene (2 SDs and 2SWs)
5. Line Area (SD's)
6. Tent pitching (SD's)
7. Firing (In firing they'll have .22 & skeet shooting) (2 SDs and 2 SWs)
8. Aero modelling



## **New Paths & New Opportunities**

Vidya Prasarak Mandal's B. N. Bandodkar College of Science, is an institution which has received many accolades; such as NAAC re-accredited 'A' grade, the 'Best College Award' from the University of Mumbai. With the vision of imparting quality education in Science and upholding the mission of moulding students into rational thinkers, competent workers and socially aware citizens. The institution has been a pioneer in the field of science education, and to this end has started courses such as B.A. /B. Sc. Human Science & B.Sc. Interdisciplinary Science.

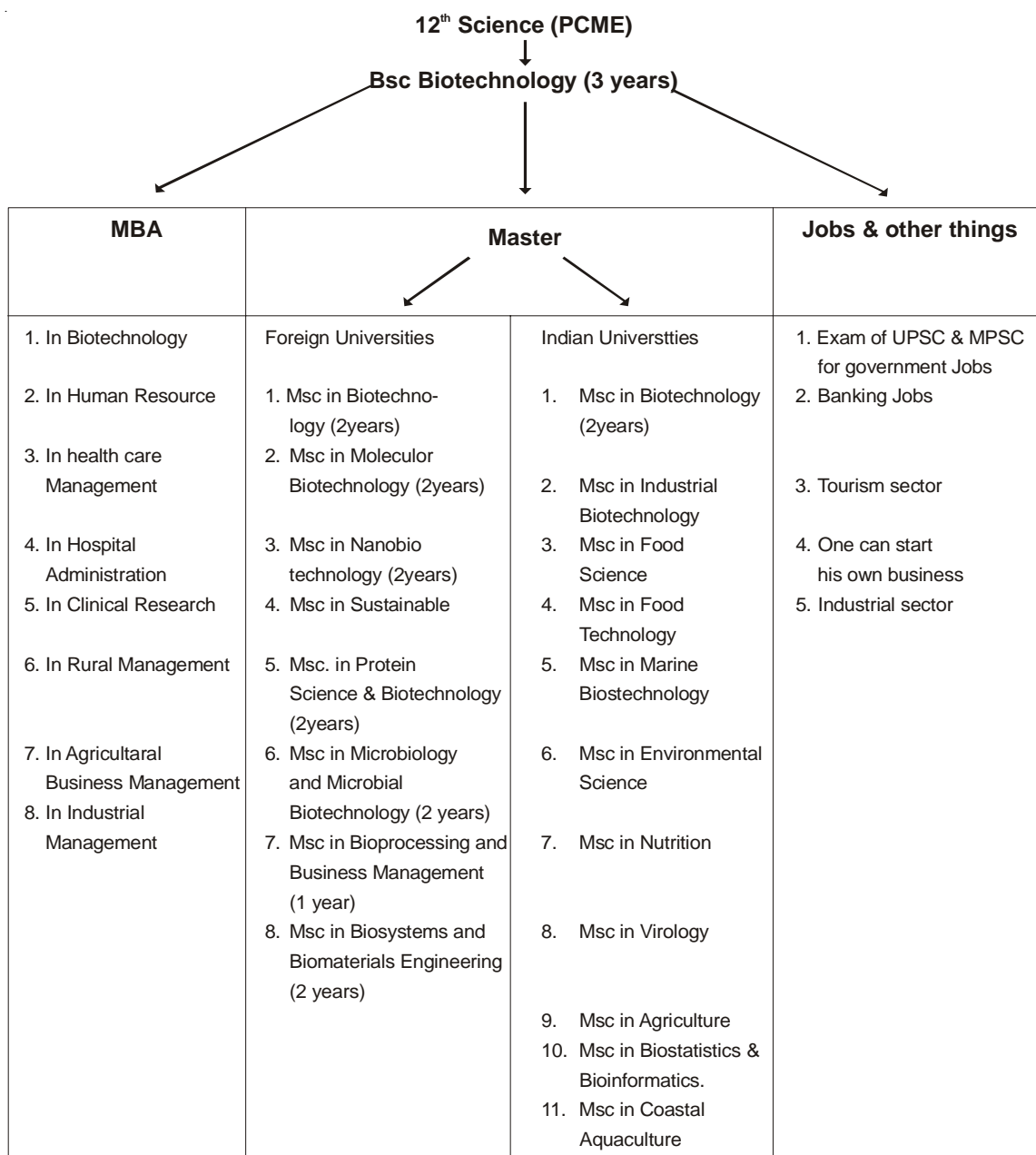
B.A. /B. Sc. Human Science came into effect in the academic year 2014-2015; it is a three year (six semesters) program that focuses on understanding the human being holistically from biological, psychological and social perspectives. It helps in comprehending the human being from birth to death with a whole gamut of perspectives from origin, ancient history, its evolution to modern times. It is an amalgamation of various disciplines of sciences namely psychology, sociology, anthropology, paleontology, neuroscience, genetics, home science and other allied spheres of knowledge.

B. Sc. Interdisciplinary Science came into effect in the academic year 2014-2015; this course includes two science disciplines (Botany and Zoology) in the first year and a module from the interdisciplinary course. In Third year, Students either would perceive in botany or zoology. The modules of Interdisciplinary courses are from science, arts or commerce such as Microbiology, Food and Nutrition, Economics, Accounts, Banking & Insurance, Office organization & Management, etc. These interdisciplinary subjects help the students for understanding the basics, thus preparing them for Competitive entrance exams, entry level jobs & Management firm jobs.

Human Science and Interdisciplinary Science; both aim to make graduates employable for entry level jobs, as many venture into the government or corporate jobs.

In-charge  
Dept. of Human Science  
**Mrs. Tejal Patil**

## SANYUJA 2017-18



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**Dipti Dudhade**  
SYBSc.

## **You Should Do What you Love Doing**

The work or the performances we are doing is the best delivered when it is done with some passion. More the love for work, the better is the result. There are people who only do it to look for result and this difference of opinion, whether we should do what we love or it's just the result that matters. The more success stories are not from those who are more educated, instead people who work in their field of interest have more success in their life. Like these, if children are given freedom to study the course of their choice they can be more successful than emerging them forcefully with a specific stream. If they are given such freedom they can get into depth of study related to their course and can explore the things which have never been in the past. Great inventors and explorers are not born with special traits, instead they are not stopped from selecting the field of interest.

Sometimes there is not the luck of getting the field of interest. In today's world, everyone's wish cannot be fulfilled until money has an upper hand and wealth over values the universe. Because of these we cannot compare with inventors who existed ages ago. We cannot sit idle till we get the job in our field of interest. Some others have their financial problem due to which they cannot go into the field of interest. Working with interest is the important thing as it could give better results. But life is not a place to sit & watch to get the opportunity. We should keep on moving, if the work you like is on the way, grab it, else try to give the best result with whatever task you are assigned and try to make that work of your interest.

**Gautami Kambli**  
SY.BSc.

## **Today's Nukes 1000 times more powerful than WW II A-BOMBS**

The Hiroshima - Nagasaki Atom bombs, codenamed as "Little Boy" & "Fat Man" respectively caused wide spread distraction killing millions of people. But the Nuclear weapons developed today are 3000 times more powerful than the "Little boy" & "Fat Man".

The Little Boy, was a bullet - Like projectile made of Uranium - 235 was fired at a core of Plutonium - 239 that was ignited with thousands of pounds of conventional explosives again setting off a chain reaction of nuclear fission.

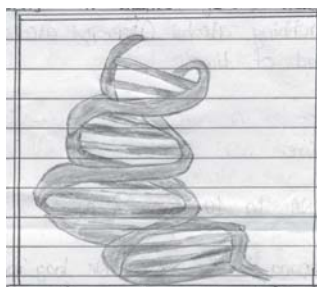
Modern nuclear weapons, such as the United States 'B 83 Bombs, use a similar fission process to what is used in atomic bombs, but that energy is then ignites a fusion reaction on a secondary core of Hydrogen Isotopes Deuterium & Tritium. They (nuclei) fuse to form Helium & again a chain reaction results in an explosion, this time a much more powerful one.

The Largest weapon ever detonated, the Tsar Bomba set off by Soviet Union in 1961 was 3,330 times powerful than Little boy. May be it's time we start looking to use Nuclear fusion for something else.

**Chaitra Kulkarni**  
SY.BSc.

## Extracting DNA from Banana and other fruits

All living things, bananas and people included pass on information from one generation to the next using the same information from one generation to the next using the same basic material, DNA within every living organism, most cells contain a complete set of DNA instructions. The information in DNA tells our bodies how to develop grow and work.



DNA or deoxyribonucleic acid is found in all living things its natural shape is called a double helix and when seen under extremely high-powered microscopes, it looks like a ladder twisted into a spiral shape.

These instructions are in segments of DNA called genes. Variant of genes, called alleles, are responsible for differences in hair color, eye color, and earlobe shape.

### **Materials used are:**

- 1/2 peeled ripe banana (you can also use strawberry or other fruit)
  - 1/2 cup hot water
  - 1 tsp salt
  - 1/2 tsp liquid dishwashing soap
  - Resealable zip-top bag quart size)
  - Very cold rubbing alcohol (isopropyl alcohol) placed in freezer ahead of time
  - Coffee filter
  - Narrow glass
- wooden stirrer

### **Extracting DNA in 10 Easy steps:**

- 1) Mash the banana in the resealable bag for about a minute until all the lumps are gone and it almost looks like pudding.
- 2) Fill a cup with the hot water and salt.

- 3) Pour the saltwater mix into the bag close the bag and very gently squeeze and move the saltwater and banana mosh together. Do this for 30 to 45 seconds.
- 4) Add the dishwashing soap into the bag and gently mix the contents. Try to avoid making too much foam.
- 5) Place the coffee filter in a clear glass cup, securing the top of the filter around the lip of the cup.
- 6) Pour the mix into the filter and let it sit until all of the liquid drips down into the cup.
- 7) Remove and discard the used coffee filter.
- 8) Tilt the glass and slowly add cold alcohol down the side of the cup. You want the alcohol to form a layer on top of the banana mix. staying separated, so be careful not to pour it too fast. Make a layer of alcohol that is 2.5-5 cm (1-2in) thick.
- 9) After the alcohol layer is set up, wait for eight minutes you may see some bubbles and cloudy material moving around in the alcohol. This is the DNA pieces clumping together.
- 10) Use the wooden stirrer to start poking the cloudy stuff in the alcohol layer, spin the stirrer its place to start gathering the cloudy stuff. When you are done, take a closer look at the stuff on the stirrer. You are looking at DNA!

### **What Happened?**

You may understand that mashing a banana can break cells apart and help break apart cell walls, but why was all that other stuff added? Add how did we get inside the cells and get the DNA to stick together?

Let's think of three of the main items we added to the bananas.

1. Saltwater - The bananas were mashed with saltwater before anything else was added. But this was a special step preparing for the addition of the dish soap. Once the dish soap helps the DNA stands to stick to each other in clumps large enough for you to see.
2. Dish Soap - Dish soap can break apart a type of molecules called lipids. Think of fats and oil. Dish Soap "Cuts through grease" because it actually breaks down those greasy molecules. Now, the molecules. Now the molecules that make the membranes around cells and the nucleus (which holds DNA) are lipids. So when dish soap is added, the cell membrane and the nuclei are broken apart, releasing the DNA.
3. Alcohol - The DNA clumps are soluble (can be dissolved) in some liquids, but not in alcohol. So adding alcohol helps the clumps of DNA to form.

**Inder Gohri**  
FY.BSc.



## **Japanese Encephalitis**

Japanese encephalitis is a mosquito borne viral infection. It belongs to the same genus as dengue, yellow fever and west Nile viruses. The First case of Japanese encephalitis viral disease (JE) was documented in 1871 in Japan.

JE primarily affects children. Most adults in endemic countries have natural immunity after childhood infection but individuals of any age may be affected.

Most JE infections are mild or without apparent symptoms, but approximately in 250 infections results in severe clinical illness. Severe disease is characterized by rapid onset of high Fever. Headache, neck stiffness disorientation, coma, seizures, spastic paralysis and ultimately death, can also result.

24 countries in the WHO South Asia and Western Pacific regions have JE transmission risk, which include more than 3 billion people. JE transmitted to human through bites from infected mosquitoes of culex species mainly culex tritaenior hynchus. Humans once infected, do not develop sufficient viremia to infect feeding mosquitoes. The virus exists in a transmission cycle between mosquitos' pigs and/or water birds (enzootic cycle). The disease is predominantly found in rural and suburban settings where human live in close proximity to these vertebrate hosts.

There is no anti- viral treatment for patients with JE. Treatment is supportive to relieve symptoms and stabilize the patient.

Safe and effective JE vaccines are available to prevent disease. WHO recommends having JE prevention and control activities, including JE immunization in all regions where the disease is a recognized public health priority along with strengthening surveillance and reporting mechanisms.

For diagnosis of JE infection and to rule out other causes of encephalitis requires a laboratory testing of serum or preferentially, cerebrospinal fluid. There are 4 main types of JE vaccines currently in use. Inactivated mouse brain derived vaccines, inactivated vero cell-derived vaccines, live attenuated vaccines and live recombinant vaccines.

**Leena Pawar**  
SY.BSc.

## Nanopore Technology

Nanopore based sequencers as the fourth generation DNA sequencing technology, have the potential to quickly & reliably sequence the entire human genome for less than 64,000 Rs & possibly for even less than 6400 Rs. The single techniques used by this technology allow us to further study the interaction between DNA and protein as well as between protein & protein Nanopore analysis opens a new door to biology investigation at the single scale.

DNA, a that encodes genetic instructions is the blueprint of life. Assured & rapid DNA sequencing technology would have profound impacts on human diseases & personalized medicine. The non- nanopore DNA sequencing technologies currently on the market require a great deal of sample preparation and complicated algorithm for data processing. Therefore, they have limitations such as low throughout, high cost & short read lengths. Fortunately, several and commercial efforts have been made to develop inexpensive DNA Sequences. After the development of three generations DNA sequencing technology is now entering the era of single-molecule nanopore technology. The significant advantage of nanopores include cable free, ultra-long threads ( $10^4$ - $10^6$  bases) high throughput & low material requirement. The nanopore approach will be one option for the fourth-generation low-cost & rapid DNA sequencing technology.

Nanopores are nanometer sized pores which are embedded in a biological membrane or formed in solid state film which separates the reservoirs containing conductive electrolytes into cis & trans compartments.

Nanopore technologies can be divided into two categories biological & solid state. Biological nanopores are usually inserted into a substrate such as planar lipid bilayers eg. Hemolysin, MSPA Bacteriophage phi 29. The advantages of biological nanopores include well-defined & highly-reproducible nanopore size & structure. Solid state nanopore show very exciting experimental results for SSDNA, but they have a constant pore size, profile & lack of stability. The exclusive electrical & geometrical properties of solid-state nanopore give them a distinct advantage over their biological counterparts however for these nanopores to be reliable devices, their chemical & thermal stabilities need to be improved.

**Saily Sud**  
SY.BSc.

## Three Apples that Changed the World

Apple has been the divine fruit of creation, the inspiring fruit of the century and the most valuable logo. We may have rarely observed these many facts of this remarkable insignificant fruit but if we track down the history of this unassuming creation of creation. We are left with a deep sense of gratitude. This is the story of apple, the fruit that hasn't evolved since the origin of mankind and yet finds itself in the midst of greatest cultural, scientific and technological revolution humans ever achieved.

Our story begins with the first Apple, the fruit of creation. The Bible explains the origin of mankind in an interesting way. God had created the world in seven days and then he created the Garden of Eden and its caretaker, the first humans Adam and Eve. Adam and Eve were allowed to roam in the garden that had the most illustrious fruits we can ever imagine. With apples, pineapples, grapes the god's orchid was teeming with fruits of creation. Interesting as it seems, God forbade Adam and Eve to eat any apple from his garden. God had created apple as the 'Fruit of knowledge and Evil' and strictly ordered them to keep away from it.

However, a serpent manipulated Eve and asked her to persuade Adam to eat and see what the fruit of knowledge holds in itself, and like all of us Adam fell for a girl. He snatched the apple the first bite and was about to swallow when god cursed them. They were cursed to live in this world of sorrow and misery with knowledge and evil of apple. So perhaps this apple was the reason we exist.

The second part of the story begins with the most creative human ever to walk the face of the earth and his remarkable apple. Science in the 16th century was far more mysterious than it is now. There were very little proofs and a lot of assumptions back them. Yet sir Isaac Newton one of the greatest scientists in the history somehow managed to pull science out of misery by developing the mathematical model of the Universe. The inspiration behind this was an apple. According to Newton, his theory of gravitation was inspired by the fall of an apple from the tree. In this story Newton was relaxing in a contemplative mood in his mother's orchard when he saw an apple falling down from the tree. This incident started a chain of events that led to the greatest discovery of Classical science, the theory of gravitation and laws of motion. So just take an apple and throw it at your head, this may not guarantee gain of wisdom but surely gain a bump on the head.

The third and the last apple in our story is the one that we so dearly love. Apple, the most valuable company of the world is reigning in the global market of smart phones and personal computers for the past decade or so. A tiny computer company that started in a garage by two college dropouts somehow managed to gain a valuation of over 220 Billion dollars. The origin of the name of this awe-inspiring company is a curious story in itself. One of the founders of the company, Steve Jobs was a vegetarian and apple was one of his fruitarian diets. He thought of the name as fun spirited and not intimidating so for the namesake, the name remained which now with its hay eaten logo has been the dream

grand for half of the population on earth. The craze for these painstakingly designed gadgets has increased tremendously and is synonymous with wealth, style and fashion. Sometimes I wonder of this was the apple that was specified in the saying “An apple a day keeps the doctor away” because getting an apple product is no less than recovering from grave illness these days. Yet among these revolutionary products, there will always be a half-eaten apple conjuring its confusing yet inspiring story whose legacy shall remain as long as future of mankind. In the coming years, yet another apple may get another apple may get added to this list. Who knows.....

**Sanika Nadkarni**  
S.Y.Bsc.

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## **Zika Virus Kills brain Cancer stem Cells**

While Zika virus causes devastating damage to the brains of developing fetuses. One day may be an effective treatment for glioblastoma, a deadly form of brain cancer.

The virus kills brain's cancer stem cells, the cells which are most resistant to standard treatment this is shown by the new research from Washington university school of medicine in St.Louis & the University of California san Diego School of medicine. The virus can cause some disorders like a baby born with tiny, misshapen heads this could be directed at malignant cells in the brain.

“We showed that Zika vines can kill the kind of glioblastoma cells that tend to be resistant to current treatment & leads to death.” said Michael S. Diamond, MD, PhD, the Herbert's professor of medicine at Washington University of school of medicine & the study Co-senior author.

The findings are published in Sept. 5th in The Journal of Experimental medicine.

Zika Virus specifically targets & kills neuroprogenitor cells.

In Collaboration with Co-senior authors Diamond & Milan G. Chheda, MD, of Washington University School of medicine & Jeremy N. Rich, MD, of University San Diego, Zhutested whether the virus could kill stem cells in removed glioblastomas removed from patients at diagnosis. They infected tumors with two stains of Zika virus, both strains spread through the tumors, infecting & killing the cancer stem cells while largely avoiding other tumor cells.

The finding suggested that Zika infection & chemotherapy radiation treatment have complementary effects. The standard treatment kills the bulk of tumor cells but often leaves the stem cells intact to regenerate the tumor. Zika virus attacks the stem cells but bypasses the greatest part of the tumor.

To find out whether the virus could help treat cancer in a living animal if it is injected in mice & it shows good result, it survived. If it is used in people it would be injected into the

brain. If it is introduced through another part of body, the person's immune system would sweep it away before it could reach the brain. Zika is safer to use in adult brain because its primary target neuroprogenitor cells are less in adults brain. On the other hand, it is dangerous in fetal brain.

Some changes or additional mutation introduced in virus will prevent infection from spreading & once few more changes are done it is going to be impossible for the virus to over them & cause disease."

**Divya Rasal**  
SYBSc.

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## **More durable, less expensive fuel cells**

A team of engineers at the University of Delaware has developed a technology that could make fuel cells cheaper & more durable a break through that could speed up the Commercialization of full cell vehicles.

Hydrogen-powered fuel cells are green alternative to internal combustion engines because they produce power through electrochemical reactions, leaving no pollution behind.

This electrochemical reaction is spurs by the catalyst in which platinum is commonly used in the type of fuel cells in vehicles. However, it is expensive. Instead the UD team made a catalyst of tungsten carbide, which is much more, cheaper than platinum and this is made up by using a series of steps including hydrothermal treatment, separation, reduction, carburization & more. After that, researchers incorporated the tungsten carbide nanoparticles into the membrane of a fuel cell. This fuel cell contain polymeric membrane, which separate the cathode from the anode, which splits hydrogen into ions (protons) & delivers them to the cathode, which puts out current.

The plastic - like membrane undergoes too many wet / dry cycles, which can happen easily as water & heat are produced during the electrochemical reactions in fuel cells. When tungsten carbide is incorporated into the fuel cell membrane, it humidifies the membrane & improves water management of fuel cells.

The team also found that tungsten carbide captures damaging free radicals before they can degrade the fuel cell membrane. As a result membranes with tungsten carbide nanoparticles last longer than traditional one. This cell is lighter, cheaper and high performativity without sacrificing durability, which is a big improvement over similar efforts by other groups?

**Divya Rasal**  
SYBSc.



## **The First Human Head Transplant- Scheduled in 2017**

Science can do things beyond imagination. Earlier this year Italian neuroscientist Sergio Canavero shocked the world when he announced he would perform the world's First human head transplant. This week Canavero announced the procedure is scheduled for December, 2017, and he has recruited a head surgeon to lead the controversial procedure. This operation may find like something out of a horror movie, but one man is hoping it will improve his quality of life.

A 30 year old Russian man, Valery Spiridonov, volunteered for the procedure with the hope of leading a better normal life. The computer scientist suffered from a rare motor neuron disease known as Werdnig-Hoffman Disease. The disease causes motor neurons the nerve cells responsible for sending signals atrophy and in severe cases, difficulty in swallowing and breathing. Currently there is no treatment for this disease.

As with any surgery, this procedure has many risks and uncertainties. Will the doctors be able to reconnect the spinal cord? Will the head reject the new body? While advancements in medicine reduce the risk of rejection. The surgery is not a guaranteed success as no doctor has ever. Successfully reconnected a spinal cord. Spiridonov is well aware of the risks and is determined to go through with the procedure.

According to Canavero's calculations. If everything goes to plan, two year is the time frame needed to verify all scientific calculations and plan the procedures details. Spiridonov told CEN. "It isn't a race, No doubt, the surgery will be done once, the doctor and the experts are 99 percent sure of its success."

Canavero will be teaming up with Xiaoping Ren, a neurosurgeon from China's Harbin Medical University. Ren is no stranger to head transplant as he has performed the procedure on 1,000 different mice following a 10 hour procedure, the mice were able to breathe, drink and even see. Unfortunately none of the mice survived for longer than few minutes.

The duo will spend next two, years preparing for the grueling 36-hours surgery. After, cleanly Severing the spinal cord arguably the most important part of the procedure, the head will be transferred to the donor body. Then comes really tricky part, reconnecting the spinal card. Canaveros compound known for its ability to fuse fatty cell membrane. Ren is expected to test Canaveros technique in mice and monkeys later this year.

Many medical professionals do not embrace this procedure, describing it as outlandish and impossible. While surviving such a complicated and intricate surviving surgery is highly unlikely. It could help restore independence for the severely disabled and some people like Spiridonov. Feel it's worth the risk.

**Leena Pawar**  
SYBSc.

## First Human antibodies to work against all Ebola virus

After analyzing the blood of a survivor of the 2013-16 Ebola outbreaks a team of scientists have discovered the first natural human antibodies that can neutralize & protect animals against all three major diseases causing Ebola viruses. The findings published in the journal cell could lead to the first broadly effective Ebola therapies & vaccines. Ebola virus's infection is usually severe & often fatal. There are no vaccines or treatments approval by the Food & Drug Administration for treating these viruses. Source two dozen Ebola virus outbreaks have occurred since 1976, when the first outbreak was documented in villages along the Ebola River in the Democratic Republic of Congo. The largest outbreak in history 2013-16 Western captivity-caused more than 11,000 deaths & infected more than 29,000 people.

Monoclonal antibodies which bind to & neutralize specific pathogens & toxins, have emerged as one of the most promising treatments for Ebola patients. A critical problem is that most antibody therapies target just one specific Ebola virus a cocktail of three monoclonal antibodies is specific for Ebola virus but does not work against two related Ebola viruses (Sudan virus & Bundibugyo virus) that have also caused major outbreaks.

"Since it's impossible to predict which of these agents will cause the next epidemic it should be ideal to develop a single therapy that could treat or prevent infection caused by any known Ebola virus" Says study CO-leader Zachary A. Boruchardt, Ph. D director of antibody discovery at Mapp Biopharmaceutical Inc. "Our discovery & characterization of broadly neutralizing human antibodies is an important step towards that goal," adds study CO-leader, Kartik Chandran Ph.D, professor of microbiology & immunology at Albert Einstein College of Medicine. The study was also co-led by John M. Dye Ph.D., Chief of viral immunology at the U.S. Army Medical Research Institute of Infectious Diseases. (USAMRIID).

Follow-up studies showed that the two antibodies isolated from the Ebola patient work by interfering with at critical step in the process by which Ebola viruses infect cells & then multiply inside them. The two antibodies encounter the virus & while it's still in the bloodstream & bind to glycoprotein that project from its surface. The virus with its antibodies still bound to it, then attaches to a cell & enters the lysosome - a membrane bound structure within the cell that is filled with enzymes for digesting foreign & cellular components. The virus must then find with the lysosome membrane to escape into the host cell's cytoplasm where it can multiply. However the antibodies prevent the virus from breaking out of its lysosome membrane to escape into the host cells cytoplasm where it can multiply. However the antibodies prevent the virus from breaking out of its "prison", thus stopping the infection in its tracks.

Knowing precisely where the antibodies attach to the glycoprotein molecules & when & how they act to neutralize Ebola viruses we can begin to craft broadly effective immunotherapies," says Dr. Dye." The knowledge has already allowed us to create a cocktail of monoclonal antibodies that we are testing in larger animal models for possible

use it treating infected patients,” adds Dr. Boruholdt.

The researchers also pinpointed the human genes that are the likely source of the immune cells that produce the two antibodies. These & other findings could help speed the development of vaccines to prevent Ebola virus infection. “We’d like to synthesize vaccine immunogens proteins that trigger antibody production that can elicit the same types of broadly protective antibodies in people,” says Dr. Chaudran.

**Saily Sud**  
SYBSc.

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## **Self-Renewing Hematopoietic Stem Cells Created for Transplantation.**

Researchers at Weill Cornell Medicine have discovered an innovative method to make an unlimited supply of healthy blood cells from the readily available cells than live blood vessels. This achievement works the first time that any research group has generated such blood forming stem cells.

“This is a game-changing breakthrough that brings us closer not only to treat blood disorders, but also deciphering the complex biology of stem cell self-renewal machinery,” said author Dr. Shahin Rafii, director of the Ansari Stem cell institute chief of the Division of Regenerative Medicine & Arthur B. Belfer, professor at Weill Cornell Medicine.

Hematopoietic Stem cells (HSCs) are long-lasting cells that mature into all types of blood cells WBCs, RBCs & platelets Billions of circulating blood cells do not survive long in the body & must be continuously replenished. When this does not happen severe blood disease such as anemia bleeding or life threatening infections can occur. A special property of HSCs is that they can self-renew to form more. This property allows just a few thousand HSCs to produce all of the blood cells a person has throughout one’s life.

Researchers have long hoped to find a way to make the body produce healthy HSCs in order to cure these diseases. But this has never been accomplished in part because scientists have been unable to engineer a nurturing environment within which stem cell can convert into new, long-lasting cells-until now.

The research team showed in a 2014 Nature study that converting adult human vascular endothelial cells into hematopoietic cells was feasible. However the team was unable to prove that they had generated true HSCs because human HSCs function & regenerative potential can only be approximated by transplanting the cells into mice, which don’t truly mimic human biology.

To address this issue, the team applied their conversation approach to mouse bone marrow transplant models that are endowed with normal immune function & where definitive evidenced for HSC potential could rigorously tested. The researchers took vascular endothelial cells isolated from readily accessible adult mice organs and instructed them

to overproduce certain proteins associated with blood stem-cell function. These reprogrammed cells were grown & multiplied in co-culture with the engineered vascular niche. The reprogrammed HSCs were then transplanted as single cells with their progenies into mice that had been eradicated to destroy all of their blood forming & immune systems & then monitored to see whether or not they would self-renew & produce healthy blood cells. Remarkably the conversion procedure yielded a plethora of transplantable HSCs that regenerated the entire blood system in mice for the duration of their lifespan phenomenon known as engraftment. "We developed a fully-functioning & long lasting blood system," said lead author Dr. Raphoel Lis an instructor in medicine & reproductive medicine at Weill Cornell Medicine. In addition the HSC-engrafted mice developed all of the working components of the immune system." This is clinically important because the reprogrammed cells could be transplanted to allow patients to fight infections after marrow transplants", Dr. Lis said.

**Saily Sud**  
SYBSc

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## **Magnetar : The Strongest Known Magnet in the Universe**

Magnetars are one of the most extreme and mysterious objects in space. They are surprising small, incredibly dense and they have extremely powerful magnetic field. The magnetic field decay powers the emission of high energy electromagnetic radiation, particularly X-rays and R-rays.

At the final stage of star's life, it explodes into a supernova. As it collapses in on itself, it outshines all of its neighbors before fading slowly away. If the living star was big enough, it leaves over a neutron star : A star so dense, diameter around 20 km and mass 2-3 really fast.

Magnetars are magnetic form of neutron star. Their Magnetic fields measures at about 1000 trillion times that of earth.

The strong fields of magnetars are understood as resulting from a magneto hydrodynamic dynamo process in turbulent, extremely dense conducting fluid that exists before the neutron star settles into its equilibrium configuration. These fields then persist due to persistent current in a proton-superconductor phase of Matter that exists at an intermediate depth within the neutron star.

Magnetars have earned the status of the most powerful magnet that's been discovered in the universe so far. In fact, a magnetar's magnetic field is so powerful that even coming within 600 miles of one would destroy your nervous system and change your molecular structure. Good thing in the case magnetar is thousand light years away.

**K. Sahiti**  
SYBSc

## **The Importance of Coral Reefs**

Coral reefs are diverse underwater ecosystems held together by calcium carbonate structures secreted, by corals. Coral reefs are built by colonies of tiny animals found in marine water that contain few nutrients. Most coral reefs are built from stony corals, which in turn consist of polyps that cluster in groups. The polyps belong to a group of animals known as cnidarian, which also includes sea anemones and jellyfish.

The coral triangle houses more than 500 species of coral and more than 3,000 species of fish. But coral reefs make up less than 1% of the ocean floor. However, they support approximately 25% of marine life.

Coral reefs are important for many different reasons like protecting coastlines, providing habitat and shelter for many marine organisms; they are source of nitrogen and other nutrients. And most importantly coral reefs help in carbon and nitrogen fixing. They help with nutrient recycling.

Coral reefs deliver ecosystem services to tourism, fisheries and shoreline protection. The annual global economic value of coral reefs is estimated between 30-375 billion us. However coral reefs are fragile ecosystems, partly because they are very sensitive to water and temperature. They are under threat from climate change, ocean acidification blast resources and harmful land use practices including urban and agricultural runoff and water pollution which can harm reefs by encouraging excess algal growth.

**K. Sahiti**  
SYBSc

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## **Geoengineering: A Plan To Control Climate Change**

Global warming also referred to as climate change is the observed century scale rise in the average temperature of Earth's climate system and its related effects. Global warming occurs when carbon (CO<sub>2</sub>) and other air pollutants and greenhouse gases collect in the atmosphere and absorb sunlight and solar radiation that have bounced off the Earth's surface. Normally, this radiation would escape into space but these pollutants trap the heat and rise the temperature. This is known as greenhouse effect.

Geoengineering schemes are projects designed to tackle the effect of climate change directly, usually by removing CO<sub>2</sub> from the air or limiting the amount of sunlight reaching the planet's surface. Although large scale geoengineering is still at the concept stage.

The First category of the scheme - Those designed to remove CO<sub>2</sub> from the air-including machines (something called "Artificial trees") that pull the gas from the atmosphere using plastic polymers. Other proposal seeks to increase the amount of CO<sub>2</sub> observed by the oceans for example by adding large quantities by lime to the water.

In second category scheme is designed to reduce the amount of sunlight reaching Earth surface proposals include firing of sulfate aerosol into the stratosphere to reject sunlight back to the space.

**K. Sahiti**  
SYBSc



## **Evolution and Change in shape of skull due to cheese**

A new research has been done on evolution or changes in shape of human skulls. These has been found due to the effect of origin of farming especially the dairy products .Largest changes in groups that has changes in shape of human skulls have been found to consume dairy products. Researchers found the largest changes in skull morphology for groups that consumed cereals & dairy products. It was published in journal that, "In early days milk was not found to be used for bigger and stronger skull bones."

According to Anthropologists it is found that cheese may have literally changed the evolution of human skull. Invention of cheese totally changed the food course, it improves every dish so drastically but its influence might not stop there. People eat so much cheese that, human's species are adapted to dairy products. We are basically born to eat comfort food. Cheeses are usually softer than stringy meat and some plants found randomly in a forest. To test this, studies were carried out by using around 1,000 skulls from different pre-industrial populations. Through these researchers found small difference in skulls. The most obvious changes were seen in populations that at dairy products like cheese. Although humans have huge brains in size. We have smaller brains which are more delicate. The main difference between farmer skulls is that it has less chewing demands. Due to cheese and dairy products it gave smaller hands and weakens our jaws. By considering this, in 2014, a study suggested that human skeleton become lighter after switching to agriculture, so farming appears to have made huge impact on our bodies.

**Gautami Kambli**  
S.Y. BSc.

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## **VAGA Hand Energy Changer**

Keeping a battery fully charged is a struggle for a smartphone addict. And now there are so many useful services on the smartphone it has been more usable, for which it should be fully charged. For such there should be devices that are self-charging, but there are socket free devices which are filling the gap. The one of the device is VAGA Hand Energy which charges your phone purely with hand movement.

According to the creator, the generator works on the principles that we learned in physics. "The end points of the axis of Hand Energy are located in a circular slot you start the spinning the ball, then rotate the Hand Energy around. This forces the side of end of each axis against the sides circular slot and combined with the resistance having the axis rotated created enough down force combined enough friction to create enough grip to increase the rate of rotation of the interior ball." The battery inside Hand Energy is also large enough to store up and reuse it so you can exercise your wrist on device when the moment in right & use it when it is required.

This device is provided to those people who are in need so that they can easily produce energy for basic needs of their families. It can be used for people who travel frequently and

are away from power sockets. It takes between 40 minutes and one hour to fully charge the batteries. The device not only provides emergency energy but it is also clean energy which is good for our ecosystem. Hand Energy has rolled out in March 2017. In a world where we lose the basic necessities this is a noble goal indeed.

**Gautami Kambli**  
S.Y. BSc.

## **UV Light Is Related To Life!**

Mostly UV light is considered harmful by people, they are right it is harmful but there is an interesting fact related to UV light and life. As a coin has 2 sides, similarly too less UV light and life may not start and too much UV light destruction all over.

As we all know our sun emits its own unique balance of "light", a combination of different forms of radiation across most of the electromagnetic spectrum. It emits visible light and we know our eyes are sensitive towards visible light. UV light emitted by sun, mostly blocked by us using or applying sunscreen some stars emits light primarily in the ultraviolet part of the spectrum. Astronomers from Harvard suggested from their recent research that UV light might have played a critical role in the emergence of life on Earth.

These astronomers believed that UV light could be key to search / look for life elsewhere in the universe. From the information gathered from different research papers, it suggested that red dwarf stars, most common stars to search life on, might not emit enough UV light to kick start the biological processes most familiar to our planet. According to the astronomers, certain levels of UV lights is necessary for the formation of Ribonucleic Acid (RNA), an important molecule, required by all forms of life.

The right amount is yet to be detected that would ignite life .Red dwarf planets and smaller and less massive than our sun. Planetary system with potential habitable zones, it refers the zone, distance between the planet and its stars where liquid water can exist. Examples are red dwarf planets such as Proxima, centauri etc. These scientists used computer models and the know properties of red dwarfs to estimate whether the surface of these planets in the habitable zone would experience the UV light, and if it would experience it, the goal is to estimate the amount present. The UV light is present in very low rate is present time on the planets and these planets to become a new young earth would require a lot of time.

But if it emits dramatic flares (very high amount of UV light) it would destroy the planet's atmosphere and inhibiting life. Still lot of work is required to perform in laboratory to find out existence of life on other planets.

We have talked about dwarf planets too much I hope you know that they are bodies orbiting around sun by its own gravity but have not cleared its orbital path.

**Dipti Dudhade**  
S.Y. BSc.

## **Awesome Accidental Discoveries**

### **1) Penicillium -**

Forever Enshrined in Scientific Legend, the discovery of Penicillin - A group of antibiotics used to combat a variety of Bacterial Infections is really just a case of dirty dishes. Scottish biologist Alexander Fleming took an August vacation from his day - to - day work in the Lab investigating staphylococci, known commonly as staph. Upon his return on Sept. 3<sup>rd</sup>, 1928. The perceptive scientist found a strange fungus on a culture he had left in his Lab - a fungus that had killed off all surrounding bacteria in the culture. Modern medicine was never the same.

### **2) Velcro -**

On one particular hiking trip in 1941, Swiss engineer Georges de Mestral found burrs clinging to his pants. On closer inspection, he found that the burr's hooks would cling to anything loop-shaped. If he could only artificially recreate the loops, he might be on to something.

The Result - Velcro. A combination of the words "Velvet" & "Crochet," the material had trouble gaining traction in the fashion industry. But one of its notable clients was NASA. Who used the material in tight suits & to help secure items in zero gravity, soon it became a fashion allowing kids everywhere to put off learning how to tie shoelaces.

### **3) Teflon -**

In 1938, Roy Plunkett, a scientist with Du Pont was working on ways to make refrigerators more home friendly by searching for ways to replace the refrigerants used back then, i.e. ammonia, sulfur dioxide & propane. He noticed some sticky resin in one of the containers he had stored one particular gas sample. This resin was resistant to extreme heat and chemicals.

In 1940 the material was used in Manhattan project & decade later found its way in to the auto mobile industry.

### **4) Smart Dust -**

Chemistry graduate student Jamie Link was working on a silicon chip of the University of California, San Diego. When the chip shattered She discovered that the tiny bits of the chip were still sending signals, operating as tiny sensors. They coined the term "Smart dust" for the small, self-assembling particles. Smart dust has a myriad of potential applications and plays a huge role in a Hacking & destroying tumors.

**Chaitra Kulkarni**  
S.Y. BSc.

## Old School Reunion

Happiness and regretfulness both vibes. Everyone met each other, the gluttoned, the lazy, the crazy, the gamer, the cool, the jerk, the nerd, the geek, and the stupid. Sudden silence was in the hall as something was missed, all it was the presence of our class teacher. Remembrance and memory was cursed at that time. Time was blamed. Everyone at the end of school promised to live in touch but only memories could make a way through it. Recollection of those memories was the most emotional part.

Times were changed, the guy who was always hungry was no more that same. The bold guy now was shy. The craziest group was lost in the pages of memories. The stupidest was now a good personality. Everyone changed except the teacher. Her teachings still remained the same.

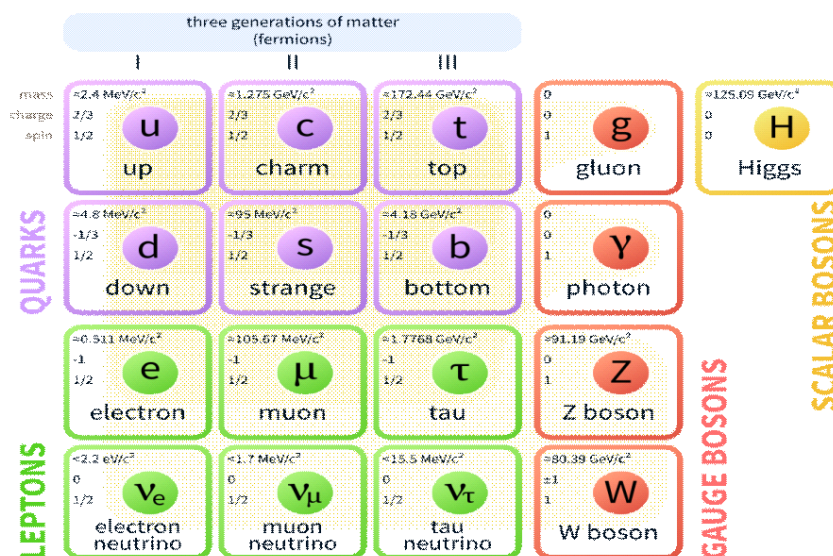
At the end, time to say goodbye, everyone sang kumbaya and it was finally time to go.

Everyone cried, new promises were made. Time was blamed again, then to and now too....

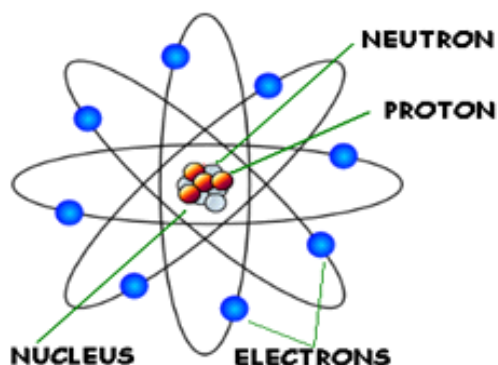
Ashish Verma  
F.Y.B.Sc

## Subatomic Particles

### Standard Model of Elementary Particles



The Universe is made up of matter and anti matter .What anti- matter is a big puzzle even today but what matter is we know .In matter if we try to go deep in it we will first encounter a molecule. If we go more deep we will encounter a atom if we go more deep we will get to know about subatomic particles . You must have heard about the subatomic particles i.e electron , protons and neutrons and must have seen this structure.



Subatomic Particles are not three they are many. There are seventeen discovered subatomic particles and are placed in Standard model of physics. The Standard model comprises of Quarks ,Leptons and Bosons . Bosons again comprises of Gauge and Scalar Bosons. Quarks and leptons are together called as fermions

Quarks (q) are of six types up and down form 1<sup>st</sup> generation ,strange and charm are together called 2<sup>nd</sup> generation , top and bottom are 3<sup>rd</sup> generation quarks. All the quarks are elementary particles .quarks come together and form composite particle called protons and neutrons. Quarks were theorized by Murray Gell –Mann (1964) and George Zweig (1964) and was discovered at Stanford Linear Accelerator Center (SLAC) in (1968) .Quarks experiences all the four fundamental interaction i.e gravitation, electromagnetism, Strong interaction and weak interaction. The charges of quarks are  $\frac{2}{3}$  or  $-\frac{1}{3}$ . Have you ever thought why protons is +1 and neutrons are 0.This is because protons is made up of two up quarks ( $+\frac{2}{3}$ ) and one down quarks ( $-\frac{1}{3}$ ) and simple calculation gives us +1 value. This is why proton is +1 .Also neutron is one up quarks( $+\frac{2}{3}$ ) and two down quarks ( $-\frac{1}{3}$ ) which gives us 0 .For every quark there is antiparticle. The only difference between quarks and antiquarks is that it differ in some properties and they have opposite sign rest everything is same. The spin of the quarks is  $\frac{1}{2}$  .The spin is nothing but intrinsic form of angular momentum. The discovery of bottom quarks were rewarded by Nobel prize in 2008

Leptons (l) are of six types. electron and electron neutrino are 1<sup>st</sup> generation . muon and muon neutrino are 2<sup>nd</sup> generation ,tau and tau neutrino are 3<sup>rd</sup> generation .All the leptons are elementary particles. There are two classes of leptons i.e charged leptons and neutral leptons .charged leptons combine to form composite particle .Leptons are involved in several processes such as beta decay. Leptons experiences only the three fundamental interaction i.e gravitation, electromagnetism and weak interaction. The charges of Leptons



are either -1 or 0 and spin is  $\frac{1}{2}$ . The discovery of muon neutrino was rewarded with the 1988 Nobel Prize in Physics. if we move from electron to tau everything is same but the particle become more massive. Leptons have their antiparticle called antileptons which differ only in properties and opposite sign rest everything is same. Quarks and leptons are together called fermions.

Bosons are of two types Gauge boson and Scalar Boson. Gauge Boson are gluon, Photons, W and Z boson. While the recently discovered Higgs Boson is a scalar Boson. It is a very Proud moment for Indians that boson are named after Indian Scientist Satyendra Nath Bose for his great contribution in this area. In layman's language gluon is nothing but its is glue between quarks which help them in forming protons and neutrons. Photons is nothing but electromagnetic packet of energy. Photons was theorized by Albert Einstein. It is currently best explained by quantum mechanics and exhibit wave-particle duality. The W and Z boson are very heavy. The Z boson is heavier than iron atom. The first prediction of Z bosons was made by Brazilian physicist José Leite Lopes in 1958. The W boson was discovered by UA1 and UA2 collaborations, CERN, (1983). The W bosons are best known for their role in nuclear decay. W boson can change up quarks to down and vice versa. The Higgs boson named after Peter Higgs and was recently discovered by CERN laboratory, Geneva. Higgs boson in simple language is if a celebrity comes in your locality everybody would run for autograph similarly when a particle enters Higgs field which is present everywhere in universe the particle gains mass.

Amey Daithankar , Aniket Patil , Atharva sule

## Looping pendulum

Looping pendulum is the interesting application of the basic physical pendulum. It works on archemedian law of physics. It can also be called as toy pendulum. Similar to that of a simple pendulum it also consist of two masses(a heavy & a small ) attached by a massless inextensible string.

### Experiment:

During the experiment heavy mass is connected to one side of the string which is supported on a horizontal stand & other side is connected to small weight. When we leave the sample mass. we can see that it forms the the loop like structure on the horizontal axis of stand. The reason behind that the when the string is leaved the heavier mass tends to pull lower mass down but during the process it acquires the rotational motion & wrapped on the horizontal axis of stand until it uses all of its energy which is created in binary system by force of gravity.

### Observations:

(1) It is to be observed that the length of the string plays very important role in experiment.

If we take the length not in proper proportion it may leads to failure of experiment.

(2) The ratio of the masses of the two weights should be ratio at least 6:1 i.e. heavier mass must be at least 6 times greater than light weight.

(3) The angle of release is also have effect on rotation of lighter weight.

Case 1 : If we leave the the string just parallel to the horizontal then it forms less rotation but the speed of rotation is quiet high.

Case 2: if we leave the string by making some angle with the horizontal axis it form the larger number of rotation then when placed parallel but the speed of rotation is slightly less.

### **Conclusions:**

(1) One can understand the the simple pendulum through this experiment.

(2) It can also be used as toy for playing children's.

**Akshay Singh**  
Sybsc

## **NOT MAGIC BUT PHYSICS**

From the beginning of our childhood we have a curiosity about how magicians do the magic? How are they able to make the things invisible? But the point is do the things really disappear or it is just our eyes which are not able to see the things which are present there.

So here is the explanation!

In our experiment, we kept a small bowl in a large bowl and the magic began, when no one was able to see the small bowl.

But the name of the article itself suggests that there is nothing like magic, there is always a science behind every magic trick. So, let's come towards the reason behind the small bowl being invisible. It was the phenomenon of REFRACTIVE INDEX!

We had kept glycerin in the big glass bowl and kept the small bowl which was also made up of glass. The refractive index of glass and glycerin being the same (near 1.47) glycerin didn't allow the light rays to interact with the surface of glass. As it is necessary for an object to be visible that light rays must fall on its surface, gets reflected back and fall on our eyes.

This didn't happen in our case, that's why people were unable to see the small glass bowl.

So, this was the physics behind the magic!

**Ismat Farooque Sendulay, Siddhesh A. Karangutkar**  
SY BSc

## **Trek To The Highest Peak of Maharashtra !!!**

ANO Capt. Madhavi Joshi  
Climb mountains not so  
The world can see you, But  
So you can see the world

The dream of climbing Kalsubai —Highest Peak of Maharashtra got realised on 24<sup>th</sup> December, 2017. Kalsubai is the highest Peak of Maharashtra height of 1646 m or 5400 ft.

Our NCC Army Boys and Girls Unit, decided about the trek. NCC Army Girls Unit Incharge Capt Madhavi Joshi, NCC Army Boys Unit Incharge Lt. Bipin Dhumale and Prof. Athawale and 50 Army Boys and Girls cadets participated in the Trek.

On 24<sup>th</sup> December, 2017, We started our journey at 6.45 a.m. from our college towards Bari Village. A bus was arranged for the whole journey. Cadets started with Antakshari which went on and on till we took a small break for tea at Dhaba near Kasara ghat. We reached Bari village around 11.00 a.m. After a group photograph general instructions about trek were given by our senior cadet Ritesh Gaonkar to the cadets. The journey was through jungles. As our cadets had to climb upto a height 1646 mt, the trek requires lot of endurance, which was their with our cadets and Ano's.

After 45 minutes we reached a plateau which was our first resting point. Again we started ascending towards our Peak using ladders and few rock patches. From here the trek was little hard. After one hour climb, we again halted at a point and had lemon juice. The fellow villagers were having small tapries with lemon juice. We made several stops along the way to recharge our batteries with lemon juice.

Finally we reached the Kalsubai Peak at 2.45 p.m. The top was covered with the rock patches. There was a small temple of Goddess Kalsubai on top. Cadets had their lunch on the top. After 45 minutes rest and group photographs we started preparing for descend. While coming down it was much easier and faster for our cadets. With growing confidence our cadets speed was accelerated and they reached the base within one hour. But some girls cadets and myself reached the base within two hours.

Kalsubai Peak is really an excellent place for adventure and trekking lovers. It is the highest point in Maharashtra which earns it much glorified title of the "EVEREST OF MAHARASHTRA". So all of us enjoyed the trek in disciplined manner. Altogether it was a great trek. All of us would love to going this trek again !!!

POESIA

SAJAK

DIGT

GEDICHT

CARMEN

RUNO

VERS

WIERSZ

TULA

# POETRY

POEMA

SI

URI





## लहरी नेत्रांचे विचार

हिमकर उमगे मग  
नेत्रात तुझ्या पाहताना  
शुभ्रताही ओलांडून वाहत  
अंबरात त्या पोहताना

भिती वाटते आजही  
नजरेत नजर मिळताना  
डोळस त्या नेत्रांचे  
रुप नजरेत भरताना

पुढच्याच क्षणी भिती  
क्षणांत बदलली  
पुन्हा शोधत तिला  
नेत्रांच्या बबुळांवर

पुष्पागत चेहरा तुझा  
देतो भितीला आधार  
तिच चूक पुन्हा करावी  
सांगत असतो सदाबहार

उत्तरेही दर वेळी  
वेगळीच उमगतात चुकताना  
अलगद मग नेत्रांतून  
हृदयात तिला भरताना

आजही वाटते भिती  
तिला काळजात कोरताना  
चित्र किती रंगेल मनी  
विचार तिचा करताना

अक्षय पाटील  
T.Y. BSc.

## भेळ

सामानाच्या पिशवीत रेटारेट झाली  
काही जरवमी झाली तर काही चिरडून मेली....  
नखच्यात चालायला गेली मेथीची जुडी  
गर्दीत तिची सुटली साडी  
शरमेन म्हणाली...

पुरुषांना मुळी नाही लाज  
हे ऐकून आली वांग्याला स्वाज  
त्याने (मुद्दाम) मारली मिरचीला धक्की  
मग मिरचीही तिरवट झाली पक्की  
तिथे शेखी मिरवीत पुढे झाली चिकट भेंडी  
मध्येच कुणीतरी मारली ताण  
(संशयाने) भोपळ्याने पकडला कोबीचा काज

पाहून हे हसला डांगरसेठ  
फ्लॉवरनेही आपला मारला देठ  
मध्येच तोंड टाकील तोंडली  
म्हणून घोसाळीने तिला आतच कोंडली  
गर्दीत लागला बटाट्याचा पाय

टमाटा ओरडला दिसतं की नाय?  
बटाट्याने डोळे मोठे केले

टमाटे ते पाहून लालबुंद झाले  
दोघांमध्ये भांडण जुंपले

टमाटे मात्र जागीच चिरडले  
टमाट्याच्या रक्ताने पिशवी झाली ओली  
ओलाव्याने तेंव्हा मला जाग आली

पाहून पिशवीची ही दूर्दशा  
म्हणाले तुझ्यासम झाली ही स्थिती भारतदेशा  
एकाच पिशवीत ठेवली ही भेळ  
म्हणून कुणाचा कुणाला बसेना मेळ....

प्रणाली धनगर

## अ आ ई ... आई ...

आई उन्हाची सावली  
आई सुरवाचा सागर  
सुरवा-दुःखात ती सदैव राही  
असा तिच्या मायेचा पदर  
कधी हसणार तर कधी रडणार  
पण स्वतःचे दुःख कधी नाही सांगणार  
अशी असते आई  
म्हणून देव सर्वांना देई

आई तुझे थोर उपकार  
कळोना कसे फेडावे  
अपार तुझा महिमा  
अपराध करी तु क्षमा  
तुझ्या नामात अमृतसार  
तुझी वाणी किती मधुर  
अशी असते आई  
म्हणून देव सर्वांना देई...

प्रणाली धनगर

ती आमची पहिली 'गुरु'  
सकाळी तिला पाहूनच करतो आम्ही  
दिवस सुरु  
उठल्यापासून ती करते काम  
रात्री मात्र ती थकते जाम  
पण कधी कुणाला सांगणार नाही  
अशी असते आई  
म्हणून देव सर्वांना देई



## चारीळ्या

१) आठवणीच्या पावसात भिजायला  
मला आज ही आवडते  
कारण...  
शरीरा बरोबर मन ही चिंब भिजते.

३) आजही तुझ्या आठवणी माझ्याकडे आहेत.  
आजही त्या आठवणीचा त्रास होतो  
तुझ्या आठवणी शिवाय  
माझ्याकडे काहीच नाही...

२) झुळूक  
जीवन एक झुळूक आहे  
ना इथे वा तिथे आहे  
मंद वाऱ्यात मंद गाण्यात  
हे जीवन फिरते...

ज्योती भेंरे



## आपले विद्यादान !

विद्यार्थ्यांसाठी पुढारलेले मदतीचे हात  
सामील होऊन त्यांच्या प्रत्येक सुखदुःखात  
सर्व अर्थाने विद्यार्थ्यांना दिलेली साथ  
असे हे साकारलेले अनोखे समाज कल्याण  
म्हणजे आपले विद्यादान...

विद्यादानाच्या मनी एकच ध्यास  
पालक कार्यकर्त्यांचाही एकच अट्टाहास  
घडावा आम्हा विद्यार्थ्यांचा सर्वांगीण विकास  
अस हे विद्यार्थी पालकांचे अतुट बंधन म्हणजे विद्यादान...

शिक्षणाबद्दलच्या आपुलकीतून निर्मित छोटासा विचार  
त्या विचाराने घेतलेला हा विस्तृत आकार  
त्या विचारानेच केली अनेकांची स्वप्ने साकार  
कोणत्याही दानापेक्षा श्रेष्ठ असे हे दान  
म्हणजे विद्यादान...

पुढच्या वाटचालीत विद्यादानाची सतत आठवण राहिल  
पुढील आयुष्यात आमच्याकडूनही विद्यार्थ्यांना मदत होईल  
शिक्षणाचे हे कार्य पुढे सदैव चालू राहिल  
विद्यादानाच्या मदतीची कायम ठेवून जाण  
पुढील आयुष्यात आम्हीही करू असेच विद्यादान...



राज खंडागळे

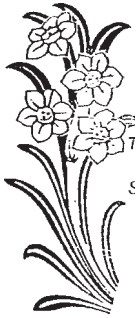
### तसे पाहता

तसे पाहता, शांततेची मला सवय नाही  
पण समोर तु येता, का सुचेनाच काही  
कोण जाणे का असे होते, कळेनाच काही  
मला सांग, असे कधी होते का तुलाही ?

जीवनात प्रत्येक क्षणाला जगतच होतो  
प्रत्येक क्षणाला मी हसतच होतो  
कुठे गेलं जगण. कुठे गेलं हसु. कळेना काही  
मला सांग असे कधी होते का तुलाही ?

तसे, तर मी आहे इथेच, सर्वासोबत  
माणसांच्या गजबजीत आपुलकी शोधत  
आपलीच माणसे सारी, तरी आपुले कोणी नाही  
मला सांग असे कधी होते का तुलाही ?

रोज रोज मला मित्र नको नवे  
कायम साथ देईल असे कुणीतरी हवे  
रोज नाही बोलता आले तरी हरकत नाही  
फक्त डोकं ठेवून खांदयावर बोला सर्वकाही  
मला सांग असे कधी होते का तुलाही



राज खंडागळे

### ‘ती’

सागर किनारी ‘ती’  
एकटीच बसली होती..  
सुसाट वाहणारा वारा,  
सळसळणाऱ्या लाटा,  
चामध्ये रमत ‘ती’  
स्वतःलाच शोधत होती..  
वाळूचे किल्ले,  
शिंपल्यांनी चाचपडले,  
चामध्ये ‘ती’ गुंग होती..  
निळ्यानभाच्या छताखाली,  
स्वतःचेच घर ‘ती’  
चेहऱ्यावर हास्य,  
डोळ्यांमध्ये करुणा,  
आणि मनामधली घालमेल,  
‘ती’ सांभाळत होती..  
अशी रूपवान ‘ती’,  
गुणवान ‘ती’  
पण, अनोळखी हया जगासाठी होती..  
कोण होती ‘ती’  
कुणाची होती ‘ती’ ?  
माहित नव्हती कुणालाच ‘ती’..  
मला हवीहवीशी ‘ती’  
आणि माझीच ‘ती’  
माझ्या स्वप्नातील राजकुमारी होती...

दिपेश्री डोके

TYBSc

## खरं सांगायच तर...

खरं सांगायच तर...

आज काल मैत्री करायची देखील खुप भीती वाटते  
कारण

कुणाशीतरी आपल्याला ती नकळतच बांधुन टाकते  
बांधलेले धागे मग सहजा-सहजी सुटत तुटत नाही

खरं सांगायच तर...

भावनाचे पोळ त्या नात्यातले

काही केल्या सुटत नाहीत

सुटतील पीळ तुटतील धागे तरी

ते जखमा घेऊन जातात

जखमा त्या डोळ्यात अपुल्या

ओलावा ठेऊन जातात

ओलावा त्या डोळ्यात लपुन सुद्धा लपत नाही

खर सांगायचं तर...

डोळ्यांच्या मिटल्या पापण्या तरी

थेंब खाली...पडल्या वाचून राहत नाहीत आणि मग

का केली ती मैत्री अशी... ?

हा प्रश्न मला सतावत राहतो

पण मी मात्र सदैव असाच

मैत्री प्रत्येकाशी करत राहतो.

दृष्टी भांगरे





### आठवणी

काय लिहू  
 कोणासाठी लिहू  
 आणि का लिहू  
 मला हे कळत नाही  
 सगळेच आजकाल का... ?  
 लिहिण्यासारखं स्वरुप काही आहे.  
 पण कोणासाठी आणि का लिहावे  
 लिहिण्या सारखे स्वरुप काही आहे  
 पण आठवणी मात्र मनात राहिल्या  
 मन हलके करायचे होते त्या मानसा पुढे  
 ती माणसे माझ्या जवळ नाहीत...  
 बोलायचे होते स्वरुप काही तुझ्याजवळ...  
 पण तु माझ्या जवळ नाहीस  
 आठवणीशिवाय काहीच नाही  
 स्वरुच आठवणीशिवाय काहीच नाही.

दृष्टी भांगरे



### दोन हात होवू दे....

न विनवू आपल्या भाग्याला  
 आयुष्य देई होकार तुला  
 सांगे लढावया योध्याला  
 दोन हात होवू दे...

भाग्य म्हणजे वाटे आधार  
 लढाई चे नको दृःधार  
 दुःख वाटे निराधार  
 दोन हात होवू दे...

आगीचे फळ लढाईत  
 भाजूनी टाकी आपुला हात  
 परि उमगे वेगळा वृत्तांत  
 दोन हात होवू दे...

जीवनसागर हा आपुला  
 जरा धुमशाख होवू दे  
 परीस मिळे नक्कीच तुम्हा  
 दोन हात होवू दे...

असा बनवा जिव आपुला  
 वाटे अजिवांता त्याचा लळा  
 अरे संघर्षांनि मिळते मानवा  
 दोन हात होवू दे...

अक्षय पाटील

T.Y.BSc.

## अजूनही “न कळालेलं प्रेम”

प्रेम म्हणजे काय असतं  
 स्वरचं काही कळत नाही  
 तिला पहिल्यांदा पाहणं,  
 पाहिल्यावर, मनात तिला कोरणं  
 हे म्हणजे प्रेम असत  
 की तिने हळूच पाहणे  
 गालातच तिचे हसणे  
 हे म्हणजे प्रेम असत  
 प्रेम म्हणजे काय असत  
 चित्रकाराला काही सुचत नाही  
 येता ती, गुपचूप तिला पाहण  
 वरून काहीतरी मोठ करत आहे  
 हे तिला मुद्दामहून दर्शवण  
 हे आणि असं म्हणजे प्रेम असतं  
 स्वरचं प्रेम म्हणजे काय असत  
 दृष्टीला हया काही कळत नाही  
 कधी अनपेक्षित वेळी हाय म्हणून  
 हृदयाचा ठोका चुकवणं  
 तो चुकला हे न समजून  
 “मनात” अस काही नाही  
 अस अलगत समजवणं  
 हे आणि असं म्हणजे प्रेम असत  
 स्वरचं मित्रा प्रेम म्हणजे काय असत  
 हया हृदयचोराला काही कळत नाही

पण,

प्रेम ही एक वेगळी भावना आहे  
 त्या भावनेत एक वेगळी कल्पना आहे  
 त्या कल्पनेत एक वेगळी समिक्षा आहे.  
 त्या समिक्षेत एक वेगळी प्रेरणा आहे  
 त्या प्रेरणेत एक वेगळी जागृती आहे

ती जागृती म्हणजे प्रेम का?

सोड जावू दे, आपला अभ्यास भला आणि आपण  
 तरीसुद्धा मन काय ऐकत नाही  
 प्रेम काय आहे कळत नाही  
 ती जाणीव, इच्छा मनातून सुटत नाही  
 स्वरचं, प्रेम काय असतं.  
 बहुतांशी हया अक्षय पाटीलला कळत नाही.

अक्षय पाटील

T.Y.BSc.



## गुलाबी थंडी

थंडीमुळे आज चाफा ही गारठला होता  
सुगंध पसरायला त्याला ही  
आज फार वेळच झाला होता

काटे असुन ही गुलाब थंडीत सुंदर दिसत होता  
देवाच्या चरणी जाईन का? केसात माळली  
जाईन याचाच विचार करत होता.

सदाफुलीचही अगदी सेम तसच होत  
गुलाबी थंडीतही चेहऱ्यावर एक प्रसन्न हास्य होत

अबोली मात्र नेहमीप्रमाणे शांत बसली होती  
अंगावर मात्र तिने थंडीची चादर लपेटली होती

मोगऱ्यालाही उठण्यात आज उशिर झाला होता  
सुवास मात्र त्याचा चहुकडे मध्यरात्रीच दरवळला होता  
जाई आणि जुई जास्तच शुभ्र दिसत होत्या  
थंडीच्या धुक्यात त्या बिचाऱ्या केव्हाच हरवल्या होत्या

रात्रभर जागरण करून रातराणी नुकतीच उठली होती  
पानांवरच्या दवबिंदूशी ती काहीतरी गुजगोष्टी करत होती

पारिजातकाने ही फुलांचे अंथरुण तयार केल  
थंडीमध्ये गारठलेल्या वासाने आपलस केल

गोंधळलेल्या नजरेनी निशीगंध सारे पाहत होता  
थंडीतल्या कोवळ्या किरणांना तो अंगावर घेत होता.

गुलाबी थंडीत फुलांची अशी मजा चालली होती  
संकटात ही प्रसन्न रहा असे प्रत्येक पाकळी हसून सांगत होती



योगिता पडवेकर

S.Y.BSc

# Vidya Prasarak Mandal, Thane

## Managing Committee 2017-2018



**Standing** : Shri. D. G. Joshi, Member, Shri. Aniruddha Joshi, Member, Dr. Mahesh Bedekar, Member, Smt. A. A. Bapat, Member, Dr. A. N. Bapat, Member

**Sitting** : Shri. J. N. Kayal, Jt. Secretary, Shri. U. B. Joshi, Secretary, Dr. V. V. Bedekar, Chairman, Shri. M. Y. Gokhale, Treasurer



**Dr. (Mrs.) M. K. Pejaver**  
Principal



# Our Administration



**S. Venkatraman**  
Vice-Principal (Degree College)



**Madhusoodan Nair**  
Vice-Principal (Junior College)



**H. V. Naniwadekar**  
Supervisor (Junior College)



**C. S. Moynak**  
Sr. Clerk



**S. D. Choudhari**  
Sr. Clerk



# Our Toppers



**Nandi Neha**  
MSc – II : Physics



**Apte Bhairavi**  
TY BSc : Physics



**Ansari Hamda**  
TY BSc : Mathematics



**Verma Jyoti**  
TY BSc : Biotechnology



**Kazi Hiba**  
S. Y. J. C.



**Chavan Priyanka**  
TY BSc : Statistics



**Ruhida Cheulkar**  
SY BSc



**Dixit Gandhali**  
F. Y. J. C.



**Shah Neha**  
TY BSc IT



**Singh Monika**  
TY BSc : Computer Science



**Deshpande Yash**  
TY BSc : Microbiology



**Sheth Saloni**  
TY BSc : Zoology



**Akshay Rathod**  
FY Bsc

# Our Achievers



**Cadet Captain  
Vishal Gauda**



**Cadet  
Mohit Kothiyal**



**Cadet  
Seema Dubey**



**Leading Cadet  
Bilal Khan**



**Leading Cadet  
Rahul Jangam**



**Leading Cadet  
Sachin Rajput**



**Sajid Khan**



**PO Cadet  
Ankita Mulik**



**CDT Rushikesh Dhane  
TSC Delhi**



**CDT Shubhm Nilkanth  
RDC Delhi**



**CDT Rahul Kambre**



**JUO Prayag Mhetre**



**Nitesh Gaonkar  
ALC Tamilnadu**



**CDT Abhijeet Shivaji Barkade**



**CDT Nitin Gajanan Suroshe**



# Our Achievers



**Krishna Narute**  
5km Run - Gold



**Omkar Khade**  
800m Run - Gold



**Rohan Patil**  
Skating - Gold



**Tanmay Mane**  
Long Jump - Gold



**Dr. (Mrs.) Madhuri K. Pejaver**  
(Principal), Nav Durga Puraskar



**Dr. Anita S. Goswami-Giri**  
Excellence in Medical Chemistry



**Dr. P. S. Mali**  
Honoured by 7-State, 3-National,  
1-International level awards



**Dr. M. V. Ratnam**  
Best Teacher of the year 2017



**Mr. G. S. Bate**  
Best Non teaching staff of the  
year 2017



**Dr. Sudesh D. Rathod**  
PhD in Zoology (June 2017)



**Dr. Ujjwala B. Gokhe**  
PhD in Physics (July 2017)



**Mr. Sunil Bhusara**  
L.L.B. (FEB 2017)



# Our Leaders



**Front Row (L To R) :** Prayag Mehtre (NCC Representative), Prathamesh More (sec. Cultural), Abhijeet Badgujar (General Secretary), Prathamesh Shinde (Sec. NSS), Akshay Patil (Sec. Magazine), Yogita Padvekar (Sec. Literary)

**Back Row (L To R):** Rucha Shinde (Joint Sec. Cultural), Pritika Matkar (Joint Sec. Cultural), Swapnali Kadam (Joint Sec. NSS), Gauravi Sonawane (Joint Sec. NSS) , Indraneel Chippalkatti (Joint Sec. Magazine)



Our Cadets in PM Rally



## Retired Teaching Staff



**Dr. N. N. Patil**  
Department of Zoology  
(26-06-1977 to 31-03-2017)



**Dr. A. P. Patil**  
Department of Statistics  
(20-06-1980 to 31-05-2017)



**Mr. H. B. Katkar**  
Department of Mathematics  
(01-07-1987 to 31-05-2017)



**Dr. M. V. Ratnam**  
Department of Chemistry  
(01-07-1985 to 31-08-2017)



**Dr. P. S. Mali**  
Department of Chemistry  
(01-07-1987 to 31-10-2017)



**Dr. K. D. Phal**  
Department of Statistics  
(09-12-1985 to 31-01-2018)

## Retired Non-Teaching Staff



**Mr. P. P. Mahashabde**  
Department of Physics  
(03-12-1979 to 30-06-2017)



**Mr. G. S. Bate**  
Department of Physics  
(15-09-1978 to 30-09-2017)



**Mr. M. P. Harad**  
Department of Chemistry  
(01-08-1978 to 31-12-2017)



# Committee Activities



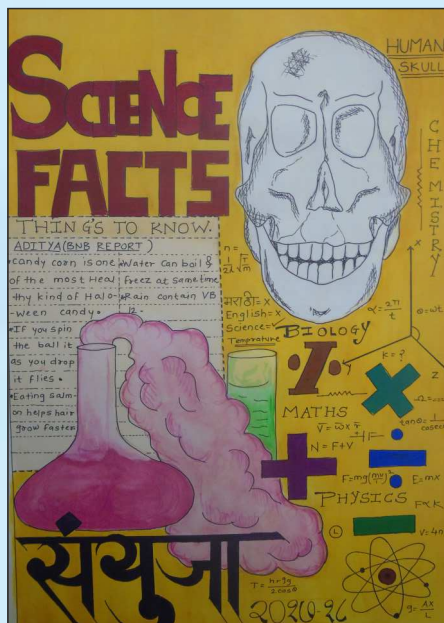


# Committee Activities





# Magazine Cover Page Competition



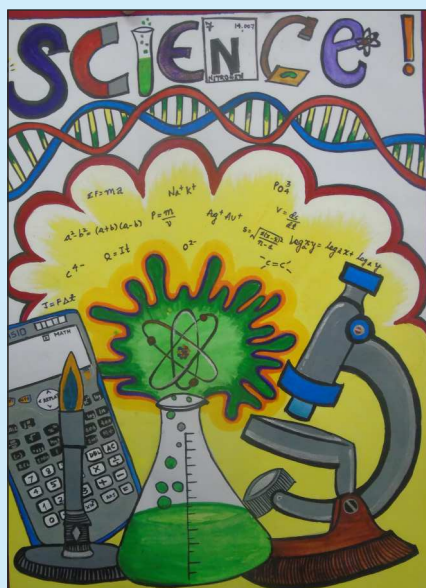
Aditya  
S. Y. J. C.



Aishwarya  
F. Y. B. Sc.



Darshan  
M. Sc. (Phy)



Ishwari  
S. Y. B. Sc.



Darshan  
M. Sc. (Phy)



Bhagyashree  
S. Y. B. Sc.

## एक दुखांत

वाटलं माझं तुझं वैर आहे  
पण भोगायचं मात्र 'त्यांना' आहे  
तुझ्या दरबारात हे गैर आहे  
माझ्यावर प्रेम करणाऱ्यांतो  
आता त्याचा तुमच्यावर रोक आहे !

किड्या मुंगीसारखे जीवन असावे  
कुसकरले की क्षणात मरावे  
रोज आधांतरी जगण्यापेक्षा  
शिस्तीत मरावे !

ना जगणे माझ्या हाती  
अन् मृत्यूची दोरी तुझ्याहाती  
कसर हा दैवदूर्विलास की  
ही अशी मी निपजले  
त्या दुर्दैवी मातेच्या पोटी!

काय देवा असे पाप घडले की  
जगणे-मरणे समांतर व्हावे?  
तेवढा बाकी आहे  
बाकी सगळे ओझेच व्हावे?



शुभम जाधव  
F.Y.BSc

## निसर्गाचे पावसाळी रूप

पक्षी उडती आकाशी चिचि करीत  
लुसलुशीत शाल पांघरली या भुमीवर  
सुंदर वायु झुळझुळतो या वातावरणात ॥२॥  
हळूच झोंबतो वारा या अंगा अंगावर

पाहता पाहता,  
निळे शुभ्र आकाश काळे झाले लगेच  
धो धो करता आला पाऊस जोरा जोरात  
शर्यत लावतात ढग गुरा वासरा बरोबर ॥२॥  
माती उडते चिखल बनून प्रत्येक पाऊलावर

गेला पाऊस आता चिंबचिंब करून  
तरी दिसे हे वातावरण वेगळेच सुंदर  
बघावे आणि बघतच रहावे अशी सुंदरता त्यात ॥२॥  
अप्सरेलाही लाजवेल इतकी मोहक रूप त्यात

अक्षय पाटील  
T.Y.BSc



आंधळ्या प्रेमाची साधी भावना

कौमल अशा चेहऱ्यावरच जागृत अस रुप तुझ.... ॥२॥  
सगळ्यास फुलवी मनापासून रातराणीच्या फुलागत..  
सुगंधी वाटतो सहवास माझ्या हया वेड्या मनाला  
तुझ्यातच फुलून जावे असं वाटतं या भोळ्या हृदयाला ॥२॥

पाहता तुला मन असं चर.. होई दिव्यासारखा ॥२॥  
हळूच मग लागतो बलब तुझ्या त्या प्रितीचा काजवासारखा  
पाहता पाहता मग तो उजळत जातो सुर्यासारखा ॥२॥  
चटकन वाटते भिती मग तो पटकन उडण्याचा...

उडणार नाही इतका विश्वास आहे मला ॥२॥  
पण साला, सांगता येत नाही वाटत राहत बुद्धीला,  
नाही..., हळू हळू झालाय ते, कधी विझणार नाही ॥२॥  
इतकी स्वरचं शास्वती आहे त्याची मला

तरी का वाटते भिती कळत नाही या हृदयाला ॥२॥  
विश्वास ठेवलाय मी असं पटकन आवाज येतो मग त्याला  
मी जिकणार हे मात्र नक्की वाटत राहतं मला ॥२॥  
प्रेम केलयं भाई, टाईम पास नाही विश्वास बोलतोय सगळ्यांना



अक्षय पाटील

T.Y.BSc



## आई

आई खरच किती गोड नाव....!

नुसत उच्चारल तरी,

ईश्वर आत्म्याचा भास होई...

पहिल्या शेंकेच पहिलं उत्तर

होतं तिचं...

पहिल्या खोडीचा पहिला मार

होता तिचाच...

पण तरीही छोट्या-मोठ्याहट्टासाठी

माझी बाजूही घेतली तिनेच...

खडत्या जिवाचा पहिला घास

उरशी धरून दिला तिने

पहिल्या प्रेमाचा पहिला हात

डोक्यावरी फिरविला तिने..

पहिल्या पावलाचा पहिला-हात घेता तिचा

बोलीचा पहिला शब्द होता तिचा..

पहिल्या बक्षिसाची पहिली थाप

पहिली तिनं स्वरुनी...

मावत नव्हते आनंदाश्रु

भिजल्या होत्या कडा दोन्ही...

सुखी राहू दे पोरं माझी

मागितल नेहमी तिनं देवाकडं...

मागितलं काय तिनं स्वःसाठी

आठवत नाही मला काही...

मिसरुड फुटली तरी...

तिचं बाळ तिच्यासाठी कधी मोठं झाल नाही...

तिच्या प्रेमाचा झरा...

तिच्या पिल्लांसाठी कधीच आटला नाही...

दिली नाही फक्त भाकरी तिनं...

स्वतःच्या पायावर उभं रहायला शिकवलं...

जन्मभर पुरेल अशी...

संस्काराची शिंदोरी बांधून दिली तिनं...

चारखले पंचपक्वान जरी

आठवण येई मला तुझ्या पोळीची...

राहिली पंचतारांकित महालात...

तरी आठवण येई मला तुझ्या कुशीची...

काय दिले...?

काय दिले तिने नका विचारू

विचारा काय नाही दिले तिने...

विचार करीत असे

काय दिले मी तुला

पण एक सांगू इच्छितो

काही झालं तरी विसरुं शकत नाही तुला... !



शुभम जाधव

F.Y.BSc

### मायेचा झरा

माय जोजवी लेकरा  
बनुनी अंगाईचा झरा  
माय बजवी लेकरां,  
माय धजवी लेकरां  
बनुनी संसारीचा दौरा  
माय आजारी गोंजारी  
जणु ओथंबणारा झरा  
माय साऱ्यांची माऊली  
देते सुखाचा हो प्याला  
माय धरत्रीची प्रभा  
बाप तिची हो शोभा  
दोघांचा हो आशिर्वाद  
धन्य झाला जन्म सारा !

प्रचिती प्रकाश गायकर  
F.Y.J.C.

### आयुष्य

आयुष्यातले काही कळत नाही  
कधी कधी दिवा ही शांतपणे जळत नाही  
सावली देणारेच करतात करार उन्हाशी  
पाझरणारे डोळेच खेळतात जिवाशी  
सोबत असणारेच तसे दूर जातात  
पाऊलवाटा गुरफटून टाकतात  
वाऱ्याची तक्रार पानांना करता येत नसते  
नियतीचे गणित कधी मांडता येत नसते  
आयुष्यात नसते काही बेतलेले  
आयुष्य एक उत्तर प्रश्न ठाऊक नसलेले...

सावी सुनिल ढमाल  
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### आई

आई एक नाव असतं  
घरातल्या घरात गजबजलेल गाव असत  
देवरूप आहे आई, प्रेमरूप आई,  
दोन अक्षरांचा शब्द जीवनार्थ सांगून जाई  
आई म्हणजे मंदिराचा उंच कलस  
आई म्हणजे अंगणातील पवित्र तुळस  
आई म्हणजे पुण्याई जगाची

आई म्हणजे कर्तव्याचे भान  
आयुष्यातील सर्वात सुंदर गोष्ट  
आईबाबांच्या चेहऱ्यावर सुखद हास्य  
घर सुटतं पण आठवण कधीच सुटत नाही  
जीवनात आई नावाच पान कधीच मिटत  
नाही

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## दिवस बालपणाचे

पाहता पाहता मोठे झालो  
सगळेच गणित बदलत गेले  
छोट्या छोट्या आनंदाचे  
क्षण केव्हाच उडून गेले

गल्लीमध्ये क्रिकेट खेळणे  
म्हणजे मोठी धम्माल असे  
दोन दगडाच्या स्टंपांमध्ये  
वर्ल्ड कपची मजा असे

शनिवारी सकाळी शाळेचे  
आवरताना धांदल होई  
आणि बघता बघता दंग्यामध्ये  
रविवार हळूच निघून जाई

वर्गातील भांडणे सोडवताना  
शिक्षकांच्या नाकी 'नऊ' येई  
आम्हाला वळण लावण्याच्या नादात  
शेवटी घरातल्यांनाच दम येई

क्लासेस कॉलेजच्या गडबडीत  
परिक्षा हेच उद्दीष्ट बनले  
आणि बालपणाचे सुंदर दिवस  
आयुष्याच्या डायरीत मागे पडले

पाहता पाहता मोठे झालो  
लगेच गणित बदलत गेले  
छोट्या छोट्या आनंदाचे  
क्षण केव्हाच उडून गेले !

सावी सुनिल ठमाल

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## बाप

बाप स्वाभिमानांनी बाणा  
 बाप कणखर कणा ॥  
 त्याच्या काळजात सुद्धा  
 लाजाळूची संवेदना ॥  
 त्याची पहाडाची छाती  
 त्याचे हृदय गुलाब ॥  
 हयाच्या घामाच्या थेंबाना  
 हिच्या मोत्याचा रुबाव ॥  
 बाप तलवार ठाल  
 बाप पेटती मशाल ॥  
 बाप जागतो म्हणून  
 घर झोपते खुशाल ॥  
 बाप घराचा तो पाया  
 आई कळस त्यावर ॥  
 जेव्हा स्वचतो ना पाया  
 तेव्हा कोसळते घर ॥  
 उलाढाली करतो हा  
 बाप फक्त घरासाठी ॥  
 शिळ्या शाप या जगाचे  
 बाप घेतो सारी माथी ॥  
 घर बायको नी मुले  
 यांना जगवण्यासाठी ॥  
 बाप होतो वेडापिसा  
 एका एका पैशासाठी ॥



बाप म्हणजे जणू की  
 वाल्याकोळ्याची जमात ॥  
 ज्यांच्या पापामध्ये नाही  
 कुणी वाटेकरी होत ॥  
 बाप म्हणजे रे कसा  
 जसा पाण्यातला मासा ॥  
 त्याच्या डोळ्यातला थेंब  
 कुणा दिसणार कसा ॥  
 बाप साठवतो अश्रू  
 वाट पाहता हया क्षणाची ॥  
 जन्मभराचे रडतो  
 लेकर जातांना सासरी ॥  
 ज्याने जपले मुलांना  
 तळहाती पाकळ्यात ॥  
 अशा बापासाठी यावी  
 थोडी आसवे डोळ्यात ॥  
 बाप थकल्यावरती  
 त्याचा बनावे आधार ॥  
 नाही उपयोग पुन्हा  
 किती घातले पितरं ॥  
 बाप म्हणजे जसे  
 की एक झाडचं अबोली ॥  
 बाप म्हणजे मुलांची  
 जणू अव्यत माऊली ॥  
 जणू अव्याहत माऊली

सावी सुनिल ढमाल  
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## रुपेरी पाऊसाचे रूप

चातकासारखी पाहत असतो वाट त्याची शेतकरी  
येईल आज, येईल आज म्हणत असतो ध्यानीमनी ॥  
वाट पाहुनी अक्षरशः वाट लागते त्याची खरी  
कुणास ठावूक तरीही पाहत असतो वाट त्याची ॥

प्रचंड होते गरम, व्हायचे असते गार त्याला  
अशा अपेक्षा घेवून फक्त पाहत असतो त्या सरीला ॥  
आनंदाच्या फवाऱ्यांची वाट पाहत असतो नुसता  
दुःख आता सुकवून गेले, उमटताना दिसतात त्याच्या ठश्या ॥

गडगड मग आवाज येतो काळ्या आईच्या बाळाला लाख लाख  
मग चमकून किरणे प्रकाश देतो त्याला ॥  
मनास मोहवित वास त्याचा, येतो पाऊस झराझरा  
चटकन उचलून पटकन खावे, मन ओढत भरभरा ॥  
वसुंधराही मोहक नटते परिसाच्या ह्या स्पर्शाने  
असंख्य रोपटे डोकावत मान, पाहतात मग गर्वाने ॥  
आकाश कधी काळं तर कधी निळं होतं खरं  
धो धो मग आवाज करीत गार करतो चोहीकडे ॥



पिकास येई उधाण या पाऊसाच्या सान्निध्यात  
पिवळं लुगडं घालती आई या सुंदरमय वातावरणात ॥  
बळीराजा मग घाई करी आणवया पिकाला  
वेगळीच असे भिती व आनंद जवळ त्यांना आणताना ॥

आपला पाऊस आता परका झाला भिजवून पिवळ लुगडं  
टर टर मग फाटावया लागलं शेतकऱ्याचे काळीज ॥  
जा आता मग साकडं घालती तोच बळीराजा पुन्हा  
निराश होऊन परतावं लागतं मग पाऊसाच्या पाण्याला ॥

साधा भोळा आशावादी पाऊस वाटतो तो पेरणीला  
राक्षस, आसूड म्हणून हाच बऱ्याचदा जाणवतो कापणीला ॥  
पाऊसांचे हे रुपेरी चक्र सतत बळीराजाच्या सोबती  
तरीही न भिता जगास पोशितो हाच माझा शेतकरी ॥

अक्षय पाटील

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## संवाद...

तुझा नी माझा एकांतातला,  
तर कधी गर्दीतला संवाद...

कधी शब्दांच्या,  
तर कधी इशान्यांचा,  
निरंतर चाललेला संवाद...

रात्र जागवणारा  
दिवस संपवणारा  
अर्थ - निरर्थक असा संवाद...

नवीन आठवणी बनावणारा,  
तर कधी जुन्या आठवणींना साद  
घालणारा,  
दुरावा संपवणारा संवाद...

प्रेमाने सर्वांशी साधलेला,  
तर कधी एकट्याशीच केलेला,  
एकमेकांना जवळ आणणारा संवाद...

नवं नातं निर्माण करणारा,  
त्या नात्यात गोडी आणणारा,  
जीवनाला प्रेमाची जोड देणारा  
-संवाद....

दिपश्री डोके  
T.Y.BSc

## माणुसकिचं नातं !

परिस्थिती ने हतबल झालं,  
तरी मनाच्या भावनेनं सावरलं,

निराशेच्या वाटेवर पडलं,  
तरी आशेच्या किरणाने पुन्हा उठलं

संकटाच्या रस्त्यावर तुटलं,  
तरी पुन्हा विश्वासाच्या दोरीने बांधलं

भिन्न जागेवरून आलं,  
तरी आता ते प्रेमाने एकत्र जुळलं

कठीण परिस्थितींना सामोरे गेलं,  
तरी आम्ही ते घट्ट टिकवून ठेवलं

मतभेदाला बळी पडलं,  
पण, तरी ह्या नात्याने जगाला  
न तुटणाऱ्या एका जाळ्यात विणलं  
असं हे माणुसकिचं नातं !!

दिपश्री डोके  
T.Y.BSc



**खरग नायक**

कहाणी एका वीराची  
खऱ्या कथेतल्या, खऱ्या नायकाची  
ना सकाळ ना सांज-रात्रीची  
ना क्षणभर घेतलेल्या विश्रांतीची  
पण सतत प्रकाशमान राहणाऱ्या पेटत्या दिव्याची  
मातीतल्या खऱ्या हिऱ्याची  
कहानी एका जवानाची  
देशासाठी मरण पत्करणाऱ्या माणसाची  
मरुनही अमर राहणाऱ्या आत्म्याची  
काळोख्या अंधारातून उजळणाऱ्या दिव्य तेजाची  
कहानी एक मृत्युंजय वीराची  
शिरा नसांमधुन वाहणाऱ्या सळसळत्या रक्ताची  
पेटत्या आणि धगधगत्या ज्वालेशी  
शत्रूशी लढणाऱ्या रांगड्या मनाची  
कहानी एका वीराची  
खऱ्या कथेतल्या, खऱ्या नायकाची

**निखिल पालकर**

F.Y.J.C.



बाप

बनियनला जरी असतील पडली भोक स्वरूप  
कुटुंबाला देतो मात्र हा स्वरे सुख  
डोळ्यातून अश्रु येत नसतील जरी  
बायका-पोरांसाठी झटण्याची गोष्ट हयाची स्वरी  
स्वांधावर पेलतो सुख दुःख सारे  
कधी भावनांना आवर घालणारा, कधी स्वरूप शांत असतो  
नशिब माना स्वतःचे सगळ्यांना बाप नसतो  
शिस्त जरी कडक, तरी मन त्याचे हळवं असतं  
मुलांसाठी काम करण्यासाठी त्याच्याकडे वेगळं कारण नसतं  
तो ही असतो हाडामासांचा, असतो एका जीवाचा  
कुटुंबाला वाचवण्यासाठी वापर करू शकतो कोणत्याही पद्धतीचा

निखिल कृष्ण पालरक

F.Y.J.C.-B





## ये बरसात

भीगी भीगी सी सौन्ही खुशबू आयी उमड़ के जोर से ।  
हवाओं ने भी स्वागत किया, अपने रुख को मोड़ के ।  
बूंद गिरी इन गलियों में, न जाने कितने बरसो बाद ।  
नयी उम्मीद नयी उमंग ले के आयी है ये बरसात ।

तपती धरती को मिलेगी राहत, खुश होंगे वन्य प्राणी सब ।  
घास / फसल लेहलाहायेंगे, सब बसंती हवाये गायेगी अब ।  
मेघा सुर सुनाएंगे, इंद्रधनुष छा जायेंगे नए सावन के साथ ।  
नयी उम्मीद नयी उमंग ले के आयी है ये बरसात ।

हर किसान का चेहरा खिल जायेगा ।  
हर मल्हार भी राग सुनायेगा, झूम झूम जायेगा ।  
हर किसी के जिंदगी में रंग भर देगी ये आज ।  
नयी उम्मीद नयी उमंग ले के आयी है ये बरसात ।



झूले पड़ जायेंगे, सखियाँ किलकारियाँ भी होगी ।  
हर तरफ हरियाली की एक अपनी दुनिया होगी ।  
आशा और उल्हास भरा नया सवेरा ये सौगात ।  
नयी उम्मीद नयी उमंग ले के आयी है ये बरसात ।

फूल मालीं से कहता हैं...  
हे माली, मुझे यहाँ से उखाड़ लेना परंतु ना देना किसी के हाथों में या फिर  
किसी के मालो में परंतु, मुझे फेंक देना  
उन क्रांतिकारियों के कदमों में ताकी आ सके  
मेरा भी नाम उनके नामों में ।

अपराजिता कानोजिया

F.Y.BSc

## ती वेडी !

विसरून जा बोलून निघून गेली,  
आणि आठवणीसोबत जगायला शिकवून गेली ती वेडी...  
प्रेमाची शिक्षा म्हणून अबोला धरून गेली,  
आणि मनात बोलायला शिकवून गेली ती वेडी...  
ठाऊक होतं प्रेम नाही तिचं माझ्यावर,  
पण प्रेम नाकारत मैत्री ही तोडून गेली ती वेडी...  
कठीण होतं विसरण कठीण होता अबोल,  
पण हे सगळं माझ्यासाठी का? याच उत्तर न  
देताच निघून गेली, ती वेडी...  
सगळं मान्य होतं मला पण प्रेमापेक्षा मैत्री  
आणि मैत्रीमधली सोबत महत्वाची होती,  
हे न ऐकताच स्वतःचंच स्वरे करून गेली ती वेडी...

## आईचं घर

आईचं घर  
मनाच्या मर्जीप्रमाणे रंगणारं  
हलक्या हवेवर तरंगणारं  
जुनासा फ्लॉवर पॉट  
साधीशी नक्षी त्यावर.....आईचं घर  
ठरलेली गोधडीची घडी  
ठरलेला सूर्यप्रकाश, ठरलेले मोकळं अंगण  
वाळत पडल्या कपड्यांची त्यात भर...आईचं घर  
मनमोकळ्या गप्पा आणि गरम पोळीचा घास  
काय हवय हे कळायच्या आधीच  
आई ते घेऊन हजर...आईचं घर  
छोट्याशा वळणाची ठरलेली गल्ली  
एक काम कर, आईच्या घराचा रस्ता धर  
ओंजळीत भरून घे मायेची सर...आईचं घर

## तूफानी शायरी

क्यों किसी की यादों को सोच कर रोया जाऊ,  
क्यों किसी के ख्यालों में घूँ खोया जाए,  
बाहर मौसम बहुत खराब है,  
क्यों न रजाई तानकर सोया जाए...

हम तन्हा ही चले थे  
जिंदगी का दही जमाने  
रास्ते में बूंदियाँ मिलती गईं  
और जिंदगीका रायता बन गया...

रोज रोज वजन नापकर क्या करना है,  
एक दिन तो सब को मरना है,  
चार दिन की है जिंदगी, खा लो जी भर के,  
अगला जन्म फिर तीन किलो से शुरू करना है...

मौसम ने ली अंगड़ाई  
और निकाल ली आपने रजाई  
आइस्क्रीम से हुई, लड़ाई  
ओर मूंगफली है घर में आई  
शरबत से मुँह मोड़ लिया  
चाय से नाता जोड़ लिया  
जरा सी ठंड क्या पड़ी  
उसने पकोड़े तलना शुरू कर दिया...

क्या हुआ जो उसने रचा जी मेहंदी,  
हम भी अब सेहरा सजायेंगे  
मुझे पता था कि वो अपने नसीब में नहीं  
अब उसकी छोटी बहन को फंसायेंगे...

## हंसना जरूरी है

रोहन : यार मेरी बीवी मारके गयी है । रोज उसे फोन करना पड़ता है ।

मोहन : वाह यार, इसे कहते हैं प्यार ।

रोहन : ओये नहीं, बोलकर गयी जिस दिन फोन नहीं आया वापस आ जाऊंगी ।

दो मिनट में खीर बनाने की विधि ।

एक कटोरी पानी में चावल और शक्कर डालकर उबालें ।

फिर इसमें एक ब्युटी सोप डाल दे । क्यों कि

इसमें है दूध, मलाई, केसर, बादाम...खीर तैयार है ।

आज सुबह मैं जैसे ही घर से निकला...

एक बिल्ली मेरा रास्ता काट गई...मैं वहीं रुक गया...

तो बिल्ली हँसते हुए बोली...

अब निकल जा....तेरी तो शादी हो चुकी है...



अब इससे जादा बुरा तेरा क्या होगा...?  
 पति ने ऑफिस में बैठे बैठे फेसबुक पोस्ट किया...  
 ‘पंछी बनू उड़ता फिर मस्त गगन में...  
 तभी बीवी का कमेंट आया...  
 धरती छूते ही सब्जी ले आना अपने भवन में...  
 वरना एक भी बाल नहीं बचेंगे तुम्हारे चमन में...



लड़की का मोबाईल बैलेंस खत्म हो जाता है...  
 वो कस्टमर केअर फोन करती है ओर पूछती है,  
 एक मेसेज दस लोगोंको एक साथ भेजना है कैसे भेजूं ?  
 कस्टमर केअर : क्या मेसेज है?

लड़की : जानू मेरा बैलेंस खत्म हो गया है जल्दी से ₹100 का रिचार्ज करवा दो...

कॉलेज में हिंदी के पिरियड में मास्टरजी ने पूछा -  
 “दुःख तो अपना साथी है, सुख तो आता-जाता है”  
 अर्थ स्पष्ट करें

रमेश : “बीवी हमेशा घर में होती है, साली आती-जाती रहती है  
 मास्टरजीने रमेश के लिये कॉलेज रत्न अवार्ड की शिफारस की है

**डॉ. प्रा. प्रकाश माळी**  
**रसायनशास्त्र विभाग**



*Only you can change yourself!*

*Change yourself, Change is the universal law.*

*You want change in your life, It may be from good to better And from better to best.*

*But you can't change yourself, Still you remain unchanged.*

*You can't change your mind, Because your thoughts are clashed with you, Even though your principle doesn't allow you. You can't change your heart, Because your emotions are attached with you, Even though your conscience doesn't allow you.*

*You can't change your life, Because you love the way you're living, Even though your desires and wishes are heated on the burning coal.*

*You can't change your world, Because you like the way you're dwelling, Even though your life is hurting in the bushes of thorns.*

*Ask yourself Is it my life the way I'm surviving?*

*Try to figure out your answers of your life.*

*Why are you committing self-destruction? You've right to live a better life in this world.*

*Nobody can take this from you.*

*....Feel the fresh air of this beautiful world.*

*They are calling you.*

*You need change.*

*It's true that you can't bring hundred percent change in your life, At least you can bring one percent change in your life. If you ever can't get the ocean of water, Then what! At least you can get few drops of rainwater.*

*Nobody can change you. Only you can change yourself.*

*Time has a wing, Which is always swinging.*

*It is never lie, It is ever flying.*

*It is so fast, And never long last. It is unmatched, So, nobody can catch.*

*Once it'll fly away, You'll never get another chance to see its way.*

***Obstacles...***

*It was a strong wind, which attacked me , didn't see*

*How that uncertain trouble came on my way????*

*I didn't get time to realise on that scary days*

*I have blown away in the unknown place*

*N that i still cant replace*

*My days of life was so tough  
I had no dare to rise up  
But....when i opened my puffy eyes  
I saw a sunrise...that glowing sun,which turned into big size  
He said something to me  
I heard his silent voice  
He asked me....to stand and fight  
Then i found myself  
And i rediscovered myself without getting stress  
N now i dare to face the challenges without any help  
Thats how obstacles thought me how to live with faith.*

***She***

*She is girl with dreams ...  
She wants you to stay forever bonded with you but she also respect her parents and need large amount of me time  
She thinks alot that she is perfect for you vut she alos think that she doesn't deserve you  
She loves you hard but she run away from live so far  
She is your wall of strength but she is crazy and unmature like furball  
She is bright n warm cold and charm and at a same night sleep with silent noise as cold as ice  
She is light all you need right now,but she barrly able to hold a darkness inside her heart  
She is a great person,but she hides everything behind smile from everyone  
She don't want anyone to hold her,but at same time she want some one with warm hug for a little while  
I am just telling you the girl u see is  
Smile n tries  
Fire n ice  
Art n writes  
Black and white.....she is girl who dream for someone with beautiful mind.*

***Bhagyashree shinde***







## **Department of Biochemistry**

In the first week of the academic year the department of biochemistry conducted bridge lectures for the students of S.Y.B.Sc and T.Y.B.Sc biochemistry on various topics in order to bridge the gap of certain previous concepts and current syllabus. In the first week orientation lectures were conducted by the HOD and the staff members.

The activities for the academic year 2017-18 started with inauguration of BIOCHEMISTRY CLUB-JEEVIKA for S.Y.B.Sc and T.Y.B.Sc Biochemistry students on 8<sup>th</sup> July 2017. 11 Students had completed summer industrial training in various pathological laboratories, pharmaceutical companies and food industries (quality control department). They shared their experience of the industrial training and presented the same in Power-Point presentation format. The summer training was a wholesome learning experience because of the hands-on training which served to enhance the practical knowledge of students also supplements the theoretical knowledge. In this activity Kanad A. Ghaisas and Siddesh Thorat shared their experience about the poster presentation and research project at International Conference of "EMERGING TRENDS IN BASIC AND APPLIED SCIENCES 2017" held at Kathmandu, Nepal which encouraged the students to take up research projects.



A visit to butterfly garden was arranged by Biochemistry followed by demonstration of vermicomposting and bio-composting done in the college campus by Mr. Ashutosh Joshi Department for S.Y.B.Sc. and T.Y.B.Sc. Students on 7/07/2017. The students were briefed about the entire composting process, from adding the waste in the plant up to collection of bio-compost. They were also told about benefits and uses of bio-compost and how to set up a small bio-composting unit. Vermicomposting was also demonstrated to students in the environmental sciences department.

Interactive session with the stalwarts, for Biochemistry students was organized by the Department of Biochemistry under JEEVIKA club. To inspire and inculcate the research aptitude among students, on 15<sup>th</sup> July 2017, Mr. Siddhesh Sapre, National Institute of Virology (NIV) was invited to interact with the students. He briefed the students about various

## SANYUJA 2017-18

M.Sc. courses and coursework in Virology.

The Parents –Teachers meeting was held on **31<sup>st</sup> July 2017**. Parents were briefed about the timetable of lectures and practical, credit based grading system, tests conducted, dates of internal examination, performance of students etc. Progress of department in terms of Research activities, JEEVIKA club activities Industrial visit, certificate courses was discussed. Future prospects after TYBSc , information about various MSc courses , Entrance examinations and exam preparation were discussed. Parents personally interacted with the staff members and were satisfied with the over-all performance of Biochemistry Department.



A lecture on “Energy Science - Super Brain Yoga” by Ms. Rati Sharma on 22<sup>nd</sup> July 2017 was conducted for Biochemistry students by the Department of Biochemistry under JEEVIKA club activity. In this lecture a brief introduction to the world of energy science was given. Emphasis was given about the importance of having a healthy and balanced mind along with a healthy body. They were encouraged to inculcate good and healthy lifestyle habits in this stressful and competitive era.



Industrial visit was arranged on 4<sup>th</sup> January 2018 to 6<sup>th</sup> January 2018 at Mahabaleshwar for Biochemistry students covering variety of the **Food Processing Industries as a part of Industrial and Nutritional Biochemistry** with a view to update the students with practical experience. Industries namely Katraj Dairy Industry, Kisan Veer Satara Sugar Factory, Strawberry Farms and processing, Madhusagar Honey processing plant, Mapro Factory were visited by 52 students along with 3 staff members.

**Dr. Anita Goswami**

## Department of Botany

In the first week of academic year 2017-18, Dept. of Botany conducted **Bridge Course** for the students of T.Y.B.Sc. on various topics like plant tissue system, anatomy diagram, secondary metabolites of plant, in order to bridge the gap of certain previous concepts and current syllabus.

On 1<sup>st</sup> July 2017, Dept. of Botany, NCC and NSS Unit of B.N.Bandodkar College organized '**Van Mahostav**' under the aegis of DBT-Star College Scheme. Around 150 students and 20 teachers participated in this festival. It was celebrated by planting different sand binder plants such as *Bauhinia* sps., *Azadiracta indica* (Neem), *Strelitzia*, *Heliconia*, *Dracaena*, *Hibiscus* sps. *Eugenia jambolana* (jamun), *Mimusops elengi* (Bakul) etc. at various places in campus. Principal ma'am encouraged students to preserve trees which play a vital role in maintaining the ecological balance.

**Parent-Teacher Meeting** of T.Y.B.Sc and S.Y.B.Sc students was conducted. During this meeting, parents were briefed on syllabus of T.Y.B.Sc Botany and Time table of T.Y.B.Sc and S.Y.B.Sc class (Theory and Practicals). Credit based examination pattern along with tentative schedule of internal as well as external exam were explained. Importance of regular attendance of students throughout the year was told. All other curricular, co-curricular and extra curricular activities in which students can participate were explained. Importance of attending study tour was also explained to them. Attendance records of respective students were shown to the parents.

Department of Botany had organized an excursion to Sanjay Gandhi National Park, Borivali for T.Y.B.Sc and S.Y.B.Sc students on 14<sup>th</sup> July, 2017. Total 80 students participated in the excursion. The forest area of the park houses over 1000 plant species, 251 species of migratory, land and water birds, 50,000 species of insects and 40 species of mammals. Students visited the Natural Information Centre (NIC) which had a well thought displays and captivating models. Flora consist of kadamba, teak, karanj, shisam, and species *Acacia*, *Zizyphus*, *Euphorbia*, flame of the forest, red silk cotton and a number of varieties of flowers, Karvy, a flowering plant that flowers once in seven years, was found in the park.

An excursion was conducted for F.Y and T.Y.B.Sc to Palghar on 19<sup>th</sup> August, 2017. 127 students participated in the study tour. Student visited Dandekar college of palghar where there were huge collections of plants in botanical garden, two Polyhouses included several medicinal herbs, then to Sundaram Multi Pap Ltd. Student were also taken to Nakshatra garden, which is maintained by Sundaram Industry. Next industry was Nishant Aroma industry where students were shown instruments used for the separation and detection of various phytochemicals present in the essential oils.

An long excursion was conducted for S.Y.B.Sc. and T.Y.B.Sc Botany students to Kass Pathar, (**Kaas Plateau**) from 07<sup>th</sup> to 08<sup>th</sup> September, 2017. Total 49 students participated in

the excursion. This place recently gained popularity as it has been declared as 'World Heritage Centre' by UNESCO in 2012. It is a biodiversity hotspot and known for variety of orchids, shrubs, insectivorous plants which bloom maximally during months of August and September. Some of them were *Smithia setulosa*, *Utricularia purpurenscens*, *Strobilanthes callosus*, *Impatiens lawii*, *Ramphicarpa fistulosa*, *Pogostemon deccanensis*, *Habenaria hyneana* and *Drosera indica*. Similar type of flora was also observed near Kaas Lake and Chalkewadi. The final stop on the botanical tour was Thoseghar waterfall.

Botany club "SHRISHTI" had organized 'Botany-Fest 2017-18' on 10<sup>th</sup> August, 2017 for F.Y.B.Sc., S.Y.B.Sc. and T.Y.B.Sc. Dr. Renuka Thergaonkar (Head of Cosmetology and perfumery Department, V.G. Vaze Kelkar College, Mulund ) was invited as Chief Guest of 'Botany-Fest 2016-17'. A total 134 of students have joined and participated enthusiastically. She talked about very interesting and fascinating therapy of 'Aroma' in which different types of Pure Essential Oil are used to treat various ailments.

### **There were various activities carried out under the aegis of DBT-Star College Scheme –**

On 12<sup>th</sup> August, 2017 an exhibition for all degree and junior college students was organized under the Star College Scheme titled "**Realizing Science: Past, Present and Future**" (Part II). It was an interdepartmental activity where students from Junior and Degree College visited the four Departments (Botany, Chemistry, Physics and Zoology). 15 teachers, 08 Non-teaching staff and 220 students attended the exhibition.

On 22<sup>th</sup> August, 2017 Dept. of Botany under the aegis of DBT- Star College Scheme had organized a Guest Lecture on "**Scope of Indian Students in Foreign Universities**". Dr. Ankit Chaturvedi (Senior Director System, Bectin-Dickinson Limited, Republic of Ireland) He gave elaborate information and scope of various qualifying exams such as GRE, TOFEL, IELTS and GMAT. 9 teachers, 185 students attended the lecture.

A two days workshop on "**Assay of Colours using Colorimeter**" was arranged by Dept. of Botany organized from 22<sup>nd</sup> Nov to 25<sup>th</sup> November, 6 teachers and 69 students attended the workshop. Students enthusiastically participated in this above workshop, by practically handling and working with the instrument.

Bharat Laxman Godambe (Asst. Teacher in Sacred Heart School, Kalyan) was invited as Guest Speaker for the Late V.N. Bedekar **Colloquium Lecture** on 25<sup>th</sup> November 2017. There were about 76 students and 7 teachers who attended. He delivered his lecture on "**Wild Vegetables**". He correlated use of many plants which are used in religious context.

An interactive session with eminent scientist Dr. Kruti Savarna was arranged on 7<sup>th</sup> December, 2017. She completed her doctoral studies on topic of '**Targeting carcinoma associated fibroblast (CAFs) for treatment of breast cancer metastasis**' from reputed Medical Research Institute of Tokyo, Japan. She shared her experience of research work with all minor details, such as setting experiments, time management, analysis of results, analytical thinking in devising treatment, etc. It was attended by 06 teachers, 12 students.



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Department of Botany of VPM's B.N.Bandodkar College of Science, will be organizing **"Multidisciplinary International Conference on Green Earth: A Panoramic View"** in collaboration with Birbal Sahani Institute of Palaeosciences, Lucknow and BNHS Bombay Natural History Society, Mumbai and it is scheduled on 12<sup>th</sup> – 13<sup>th</sup> January 2018. On 10<sup>th</sup> July 2017, Department of Botany organized **First Pre-Conference Workshop** were a total of 36 teachers and 275 students participated in the workshop. As a part of International Conference, a Logo Competition was conducted by Dept. of Botany. The creative logos were judged by an Dr. Manoj Kumavat (M.D., Alternative Medicines & Member of Bombay Art Society). Winner of this logo competition was declared by Principal and Convener Dr. Madhuri Pejaver. Ms. Monal Chitnis (7<sup>th</sup> Std, Shreerang Vidyalaya, Thane) won the prize. The technical session began with a talk by Principal Dr. Pejaver who delivered lecture on 'Australia from bird eye view'. Second invited talk was delivered by Dr. Pushpa Mishra on the topic "Biophysics a route to serve mankind. Third speaker was Dr. Krishna Iyer, Professor of Pharmaceutical Chemistry (Mumbai University). His topic of presentation was DNA discovery.

**Second Pre-Conference Workshop** of Multidisciplinary International Conference on Green Earth: A Panoramic View was organized on 11<sup>th</sup> December, 2017. There were total 17 teachers and 173 students participants. The technical session began with first invited talk by Vrisha Mitra Shree. Prakash Kale (Writer). He had developed Nakshatra botanical garden at Palghar and similar botanical garden in some colleges and cities. Second invited talk was delivered by Mr. Suhas Naik (Programme Co-ordinator, Nehru Science Centre) on the topic "Introduction to Our Universe". He explained about satellites, meteoric shower, comets, galaxies, nebula, craters in his lecture. Third speaker was Dr. Kiran Pariya (Assistant Professor, Department of Zoology, B.N.Bandodkar College of Science). His topic of presentation was Open gene-open Mind.

**Dr. Moitreyee Saha**



## Department of Chemistry

To provide basic knowledge to students for better understanding of the subject Department of chemistry conducted several activities in academic year 2017-18. Department of chemistry under DBT star scheme introduced basic experiments for undergraduate students between 24<sup>th</sup> July to 21<sup>st</sup> Aug.2017. The activity helping the students in better understanding of the principle and working behind the various techniques which are available for the separation and identification of chemical compound.



The department of chemistry conducted the remedial lectures for the students of F.Y.B.Sc and S.Y.B.Sc students on various topics in order to understand the concepts and topics from current syllabus. To inspire the student and make them aware about career opportunities the guest lecture on “What after third year” was arranged by Niketan Taware, MD, Bright ways, Mumbai on 11 September 2017.



To develop and promote the research culture in the subject of chemistry the mini research projects are given to 15 students. To develop critical thinking and to clear basic idea of the science, department organized the Exhibition on “Realizing Science-Past to Present” (Part-II) on 12<sup>th</sup> Aug.2017. The student participated in this event and given the very good response which is reflected in the interactive session.

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The Parents –Teachers meeting was held on 18<sup>th</sup> Aug.2017. The Head of the department Dr.D.R.Ambavadekar shared the achievements of the college and department with Parents and also briefly talked about the timetable of lectures and practical, credit based grading system, tests conducted, dates of internal examination, performance of students and the Progress of department in terms of Research activities, club activities, Industrial visit, certificate courses was discussed.

Dr.U,R,Pandit and other staff members also given the information about various MSc courses, Entrance examinations and how to encouraged the students towards exam preparation. Parents personally interacted with the staff members and were satisfied with the over-all performance of chemistry Department.



The department of chemistry under chemistry club- “URJA” has organized seminar for T.Y.B.Sc students on the topic “The career in chemistry” on 25 Nov.2017. In the seminar Dr.Anita Goswami-Giri, Dr.S.S.Kahandal and Dr.Rohini Kharade were discussed the different opportunities in the field of research, industry and civil services. They were interacted with the students and discussed how to prepare for interviews, what are the requirements of the QC and R&D departments in industry, which are the different institutes offering integrated PhD programs, and what are the skills to be acquired to fulfill the industrial requirements.



**Dr. D. R. Ambavadekar**

## DEPARTMENT OF ENVIRONMENTAL SCIENCE AND DEPARTMENT OF BIODIVERSITY, WILDLIFE CONSERVATION AND MANAGEMENT

A lecture on “E-Waste Management” was organized on 13<sup>th</sup> January 2017, by Department Of Environmental Science at Patanjali sabhabriha, B. N. Bandodkar College of Science. Mrs. Rashmi Joshi (Joint Hon. Secretary Eco-Rox) was the speaker for the lecture. She explained the concept of E-waste. She explained how the unsegregated waste generated from houses directly ends up at landfill sites leading to various kinds of pollution. She also spoke regarding the four criteria of Swachh Bharat Abhiyan; out of which one is to be dealt on a larger scale. The talk was quite informative for students as they learned importance of segregation of E-Waste, its effect on the environment.

On 30<sup>th</sup> January, 2017 the Department of Environmental Science in collaboration with Hariyali, Thane organized an E-Waste collection drive which was the first one in the campus. Sister colleges, NGOs, Private firms, Housing Societies from various parts of Thane and surrounding area contributed whole heartedly in this drive. The volunteers and staff kept a record of the waste being brought by the people. The E-Waste drive began at 11am and ended by 6pm. The total amount of E-Waste collected at the end of the drive was **1985.26 kg**.



VPM'S B.N.Bandodkar College of Science in collaboration with Metadesign India Pvt Ltd. conducted two days workshop on **Green buildings awareness and sustainability** on 1<sup>st</sup> and 2<sup>nd</sup> February 2017 at Patanjali auditorium. The workshop comprised of sessions based on various topics that included green buildings, landscaping, rain water harvesting, solar energy, plants in green buildings, indoor air quality, daylight simulation and various case studies.

Department of Environmental Science and Biodiversity Wildlife conservation and Management organized one day excursion to Bhandup pumping station, Mumbai on 4<sup>th</sup> February 2017. Various migratory and resident bird species were photographed and recorded by students. Departmental staff members and 6 students of M.Sc. part I attended the excursion.

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Department of Environmental science, Biodiversity, Wildlife Conservation and Management and Zoology of VPM's B. N. Bandodkar college of Science, Thane in collaboration with WWF-India organized a talk on "Life in a Metro for a Carnivore" by Mr. Nikit Surve (Research associate, Wildlife Conservation Society-India programme), on 16<sup>th</sup> February 2017. Mr. Nikit Surve spoke about the work that he has been doing in Sanjay Gandhi National Park, making grids, a setting up camera traps with the help of volunteers, methods used to understand density pattern of the leopards. After his talk, he took **hands on workshop** in the college campus where he showed demo of techniques of setting camera traps, working of compass, range finder and GPS.

A field visit at Velas and Velneshwar of Ratnagiri district was organized by the Department of Environmental Science and Biodiversity, wildlife conservation and management for M.Sc. students from 22<sup>nd</sup> February to 25<sup>th</sup> February 2017. A small village, Velas came into limelight a decade ago due to the marine turtle conservation work, initiated by non-governmental organization "Sahyadri Nisarg Mitra". Vidya Prasark Mandal has established Maharshi Parshuram College of Engineering at Velneshwar. This college has huge 35 acres beautiful sea facing campus. The college has been practicing many eco-friendly activities to make its campus Green in every aspect. The management has installed a full fledge solar set up and also sewage water treatment plant, medicinal plant garden etc. It was a good exposure for students to see these projects in working condition.

A lecture was arranged by department of environmental science and biodiversity wildlife conservation and management on 4<sup>th</sup> march 2017. Dr. Baban Ingole, chief scientist, NIO was the spokesperson for the lecture who delivered a brief talk about biodiversity and the experience he came up with during his study. Dr. Baban Ingole began his talk by speaking about the marine biodiversity along Maharashtra coast. He spoke about the biodiversity of gastropods, their variation, colours, pattern & florescence material which is used in medicinal field and the other uses of the florescence material. Around 35 students of Environmental science, biodiversity wildlife conservation and management and Zoology attended the talk.

VPM's B.N.Bandodkar College of science organized a half day seminar on solid waste management, need, and responsibility in collaboration with Hariyali, an NGO in Thane on 19<sup>th</sup> March 2017. There were 3 speakers for the first session which was chaired by Dr. Mrs. Mangala Borkar. The first speaker was Dr. Mrs. Nilima Kulkarni who spoke about the environmental importance of Municipal solid waste, its generation, types and hazards. The second speaker was Mrs. Neelima Kolte from BMC who talked about collection, transport of Municipal Solid waste, generating sources, type of conveyance and methodology. The next speaker was Mr. Satish Athalye who explained the treatment process and disposal of solid waste namely centralized, decentralized and zero garbage method. The sessions were followed by Panel Discussion headed by Dr. Mr. Madhuri Pejaver (Principal, B. N. Bandodkar College of Science), Mrs. Rashmi Joshi (Founder of ECO-ROX) and Tukaram Ghage (BMC). The half day seminar was very inspiring, informative and full of knowledge as eminent personalities came and shared their experience which truly inspired the students

and as well as other audience members.

A talk on “**Freshwater ornamental shrimp keeping**” was organized on 25<sup>th</sup> March 2017 by the department of Environmental Science & Zoology in collaboration with HOPE nature trust under the BNB HOPE lecture series. Mr. Pushkar Tambe is the Director and Senior Surveyor with Troupe7 Consultants Pvt Ltd. Pushkar Sir began his talking about aquarium and the need to have an aquarium, type of tank, the fish species, amount of water, the methods and precautions to take while setting up an aquarium. He also spoke about the different components of an aquarium and various parameters like pH, temperature, salinity etc which need to be taken into consideration while setting up and maintaining an aquarium.

On 4<sup>th</sup> April 2017, Department of Biodiversity, Wildlife conservation and Management, Environmental Science and Zoology of VPM's B. N. Bandodkar College of Science, Thane in collaboration with WWF-India organized a trail to Sanjay Gandhi National Park at Yeoor Hills, Thane as a part of volunteer training workshop. Mr. Nitin Walmiki was the resource person who is currently working with Terra nero, Thane. He is the founder of the group Eco-eco. A total of 25 students and 3 staff members participated in this trail. The trail started from Patonipada and took the Bhendinala route. Mr. Nitin Walmiki spoke about the various aspects to be kept in mind while on a trail, the different calls of birds, plant, animal, butterfly, moth species, the difference between a butterfly and a moth, the difference between a crab and scorpion hole. He also spoke about career in research and various projects that he is working on.

### 2017-18

Movie Club activity on “Kingdoms of Tiger” by Bruce Neibaur on 28<sup>th</sup> of June 2017 A film show was organized by Environmental Science and BWCM and Zoology Department as an Interdepartmental activity under Movie Club at 1.30 pm in the Environmental Science and BWCM Department. The movie was based on wildlife documentary titled ‘India–Kingdom of Tigers’. A total of 32 students (27 female and 5 male) from T.Y. B.Sc. and M.Sc. attended the program. The documentary focused on how Jim Corbett a British –Indian hunter and tracker- turned conversationalist, who hunted large number of man-eating tigers and leopards in India.

On 24th July 2017 on occasion of World Mangrove Day, students and faculty of Environmental Science department along with members of Paryavaran Dakshata Mandal in association with ATBS conducted one day “**Thane creek convention**” in Patanjali auditorium of the college where eminent speakers Mr. N. Vasudevan, Dr. Sanjay Joshi and Dr. Prasad Karnik and Dr. Mrs. M.K. Pejavar interacted with the students and the audience on how mangroves play an important role in the wetland ecosystem and the need to conserve the declining mangrove cover to sustain the wetland ecosystem and Protect the valuable marine species that are on the verge of declining. A total of 106 Students and 23 guest audience from various fields such as NGO, press, teachers etc.

One day visit to Coastal and Marine biodiversity centre, Airoli was arranged on 25<sup>th</sup>



July 2017 was arranged for Environmental Science part II students. It is a newly developed Nature Information Centre which has been established by Mangrove Cell and GIZ. It is highly techno savy machines, system interfaces, Kiosks which provide interesting information regarding coastal and marine species found in Flamingo Bird Sanctuary. Various aspects of marine flora and fauna such as habit, habitat, food and conservation related information can be learned in the interactive manner. One staff member and 8 students attended excursion. The students were very much delighted and enjoyed the visit.

A talk on “**Vulnerable Species of SeaTurtle—‘Olive Ridley’s Nesting Parameter’**”, by Mr. Kaushik Koli was organized on Saturday, 12<sup>th</sup> August 2017 by the department of Environmental Science & Biodiversity, Wildlife Conservation and Management of VPM’s B. N. Bandodkar College of Science, Thane at the Patanjali Auditorium, Thane. The lecture was organized under colloquium series started in the memory of late Dr. V. N. Bedekar, President, Vidya Prasarak Mandal. Mr. Kaushik is student of the college and perused his master’s degree in Biodiversity, Wildlife Conservation and Management. He was selected on the project of Gujarat Institute of Desert Ecology. He explained that sea turtles are one of very few creatures that eat sea grass. Climate change has an impact on turtle nesting sites. Thus, the management and Conservation of the species is very much necessary. He wholeheartedly shared details about his dissertation on Olive Ridley Turtles along the Ratnagiri, coast of Maharashtra. He shared his personal experiences on the field study so that the students understand the benefits and hardships that a researcher comes across during his study. The session was attended by 56 students and 8 staff members. Overall the talk was very informative and was enjoyed by students.

Department of Environmental Science in collaboration with Hariyali, Thane organized an **E-Waste collection drive** on 22<sup>nd</sup> August 2017. This was the second of its kind in the campus. Sister colleges, NGOs, Private firms, Housing Societies from various parts of Thane and surrounding area contributed whole heartedly in this drive. The student volunteers and staff kept a record of what waste being brought by the people. The E-Waste drive began at 10 am and ended by 7 pm. The total amount of E-Waste collected at the end of the drive was around **1.25 tonnes**. The response was overwhelming.

VPM’s B. N. Bandodkar College of Science, Thane in collaboration with HOPE of Rotary Club of Thane under the BNB HOPE lecture series organized a talk on ‘**Dialogues with the Elephants**’ by Mr. Anand Shinde on 23<sup>rd</sup> September 2017. Mr. Anand Shinde is the Founder and President of Trunk Call Foundation. Mr. Anand Shinde delivered a talk about his own first-hand experience of communicating with lone elephants at elephant camps. In his talk he shared his experiences of working with various elephant rehabilitation centre in Kerala. One of the rehabilitation centres where he worked was Kottur Elephant Rehabilitation Centre. He expressed his interests about elephants and requested everyone to contribute to its conservation.



Excursion To Velas - Velneshwar



News about E waste collection drive



Dr. V.N. Bedekar Memorial Lecture



M.Sc. Environmental Science students at E waste collection drive

**Dr. Poonam Kurve**

## राष्ट्रीय पर्यावरण प्रज्ञाशोध परीक्षेत बांदोडकरच्या विद्यार्थी व शिक्षकांना सुवर्ण पदक

जगाचे वाढते तापमान, जंगल संपत्तीचे होणारे नुकसान, मोठ्या प्रमाणावरील वृक्षतोडणी, ओझोन लेअरचे घटते प्रमाण, सर्वच बाबतीत होणारे प्रदुषण, इत्यादी समस्यांतून आपल्या परीने उपाय शोधण्याचा प्रयत्न करणाऱ्या काही संस्थांमध्ये मल्लीनाथ 'इंटरनॅशनल फाऊंडेशन फॉर अर्थ अँड इन्व्हायर्मेंट' ही गोव्याची राष्ट्रीय संस्था राष्ट्रीय स्तरावरील पर्यावरणातील क्षेत्रांत प्रज्ञेच्या शोधासाठी एका अखिल भारतीय परीक्षेचे आयोजन करित असते, दरवर्षी या परीक्षेत बांदोडकर महाविद्यालयातील कनिष्ठ विभागातील पर्यावरण शिक्षण विषयातील अकरावीच्या विद्यार्थ्यांनी बाजी मारली.

विद्या प्रसारक मंडळाचे डॉ. महेश बेडेकर हे स्वतः ध्वनी प्रदूषणाविरुद्ध सनदशीर मार्गाने व एकाकी शिलेदाराप्रमाणे लढा चालू ठेवत आहेत व त्यामध्ये आपल्यापरीने एक खारीचा वाटा म्हणून बांदोडकर महाविद्यालय फेअरवेल आणि वार्षिक समारंभ ही जाणीवपूर्वक मर्यादित डेसिबल्समध्ये साजरा करून सर्व महाविद्यालयांना एक आदर्श घालून दिला

## SANYUJA 2017-18

आहे, तसेच गेली १० वर्षे पर्यावरण प्रज्ञाशोध परीक्षेत राष्ट्रीय पातळीवर घवघवीत यश संपादन करून एका नव्या अध्यायाची सुरुवात करीत आहे.

या वर्षी बांदोडकर कनिष्ठ महाविद्यालयातील अकरावीची प्रीती सब्बनवार हिला सुवर्ण पदक व अलका यादव हिला रौप्य पदक मिळवून महाविद्यालयाचे नाव सदैव उच्च स्तरावर राखण्याचा प्रयत्न केला आहे. संपूर्ण कनिष्ठ महाविद्यालयातून ४६० विद्यार्थी या परीक्षेला बसतात आणि आपली पर्यावरण क्षेत्रातील प्रज्ञा सिद्ध करीत असतात. एखाद्या महाविद्यालयातून इतक्या मोठ्या प्रमाणात परीक्षा देणारे विद्यार्थी पाहून मिफी या संस्थेने या परीक्षेचे समन्वयक प्रा. अनिल आठवले यांना सुवर्ण पदकाने सन्मानित केले व महाविद्यालयाचे योगदान म्हणून प्राचार्या डॉ. माधुरी पेजावर व उपप्राचार्य डॉ. अशोक पाटील यांना या संस्थेने प्रशस्तीपत्र देऊन सन्मानित करण्यात आले. उपप्राचार्य डॉ. अशोक पाटील यांना या संस्थेने प्रशस्तीपत्र देऊन सन्मानित करण्यात आले. उपप्राचार्य एच. बी. काटकर यांना सुवर्ण पदक, प्रा. बिपीन धुमाळे रौप्य पदक, डॉ. प्रकाश माळी, प्रा. विनोद थोरात, प्रा. रोहिणी डोंबे, प्रा. दर्शना चव्हाण, प्रा. विलास लोटे यांनाही प्रशस्तीपत्रक देऊन सन्मानित केले. सर्व शिक्षण क्षेत्रांतून या सर्वांवर अभिनंदनाचा वर्षाव होत आहे.



समन्वयक

प्रा. अनिल आठवले

राष्ट्रीय पर्यावरण प्रज्ञाशोध परीक्षा

## Department of Human Science and Inter-disciplinary

1. Department of Human Science organized one day excursion to Mukangan-Rehabilitation center, Shanivar Wada & Parvati Pune on 4<sup>th</sup> February 2017. The objective was to understand what is addiction, how does it affect an individual and their family members and Knowledge about historical places. Departmental 3 staff members and 10 students of S.Y. & T.Y. attended the excursion.
2. The Department of Human Science arranged a Visit to Chhatrapati Shivaji Maharaj Sangrahalaya & Jahangir art gallery for the First year Students on 11<sup>th</sup> March 2017. The trail started from CST station. All the historical places were observed through the trail. purpose of visit to create awareness and sensitivity towards our rich heritage through a visitor-friendly museum for the purposes of education, study and enjoyment of the public. 8 students were present for the visit accompanied by two staff member.
3. Department of Human Science organized one day excursion to Sanjay Gandhi National Park, Mumbai on 29<sup>th</sup> July 2017. Objective of visit to study Biodiversity of SGNP & also observe various Insects, Birds & animals by students. Departmental staff members and 30 students of F.Y, S.Y. & T.Y. attended the excursion.
4. Department of Human Science organized one day visit on 18<sup>th</sup> August 2017 to Special school visit "Holy Cross convent School & Career Training centre". Total 25 students visited accompanied by 2 staff members. The visit focused on understanding the psychological aspects of special children, how they are trained for day to day activities etc.
5. Considering the importance of life skill training in every day life, Department of Human Science & Interdisciplinary Science of VPM's B.N. Bandodkar college of Science, Thane has tried to put light on the different life skills required to cope up in life by organizing a colloquium lecture on "LIFE SKILL TOOLS" by Mrs. Jessie John (Centre Manager & Life skill trainer of SMART program) in the memory of beloved Dr. V. N. Bedekar on 9<sup>th</sup> September, 2017 for the students.
6. On dated 11<sup>th</sup> November 2017 The Department of Human Science arranged a Trail Visit to Chhatrapati Shivaji Maharaj Sangrahalaya for the First year Students on 11<sup>th</sup> November 2017. The trail started from CST station. All the historical places were observed through the trail. 20 students were present for the visit accompanied by one staff member.
7. The Parents-Teachers meeting was held on **13<sup>th</sup> December 2017**. Parents were briefed about the timetable of lectures and practical, credit based grading system, tests conducted, dates of internal examination, performance of students etc.

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8. On 16<sup>th</sup> December 2017 Department of Human Science arranged a visit to Exhibition of rocks, minerals & Archaeology Antiquities at Kalina campus Mumbai. 30 students were present for the visit accompanied by two staff member.
9. On 6<sup>th</sup> Jan 2017 Department of Human Science S.Y. & T.Y. student attended a seminar on topic School psychiatry & adolescence under the guidance of one staff member.
10. In the first week orientation lectures were conducted by the staff members. Further activity which taken in our Department is Project & Seminar presentations to develop positive learning experience & professional skills.

### Interdisciplinary Science

1. Visit to bank : “Thane Bharat Sahakari Bank, Cidco Thane” on 3<sup>rd</sup> August 2017. The visit aimed at understanding working of bank, procedures & protocols followed in Bank, types of loans facilities available on different basis etc. 19 student visited the bank accompanied by one staff member.
2. on “Accounting System in office” - Demo lecture in college office – on 4<sup>th</sup> August 2017 Conducted by Mrs. Priyanka Koli. Total 19 students participated. It gave a brief knowledge about how accounting system works in a office.



Museum Visit



SGNP Visit



Colloquium lecture on “LIFE SKILL TOOLS” by Mrs. Jessie John

**Ms. Tejal Patil**



## DEPARTMENT OF INFORMATION TECHNOLOGY AND COMPUTER SCIENCE

IT's Club organized "BNBTechEdu" (Series of Workshops ) for Teaching and Non-Teaching staff members of our college where IT Teaching staff members trained them for how to work with Google forms, Movie Making, Ubuntu Operating system, Libre Office, Computer Troubleshooting, MOOC, D-Space in the month of November 2017.

**Prof. Abhijit Kale**

१४ सितंबर २०१७ को "हिंदी दिवस" के उपलब्ध मे बा. ना. बांदोकर महाविद्यालय मे प्रमुख अतिथी गझलनायक / गझलसम्राट प्रा. हानिफ शेखजी उपस्थित थे । इस समय हिंदी विभाग से मैने कार्यक्रम का आयोजन किया "राष्ट्रीय एकात्मता" "शिक्षा का महत्त्व" "सर्व धर्म समभाव" का छात्रों के माध्यमसे नृत्य, नाटक/ एकांकिका और मुकअभिनय नृत्यनाटिका, सुत्रसचलन, स्वागतगीत आदि के जरिए छात्रों के कलागुणो का विकास करने हेतू छोटासा प्रयास मैने किया है । इस समय उपप्रधाचार्य श्री. व्यंकटरमनजी श्री. चौधरीजी, जुबेदा खान आदि अध्यापकगण उपस्थित थे । हमारी प्रधानाचार्या डॉ. माधुरी पेजावरजी के अनुमती से कार्यक्रम संपन्न हुआ । सभी छात्र, अध्यापकगण, हिंदी दिवस मे सहभागी का मैं तहेदिल से अभिनंदन नमन अभिवादन करता हूँ ।

धन्यवाद !



**ग्रंथालय अहवाल**

२०१६-२०१७ या शैक्षणिक वर्षात १३४८ पुस्तके खरेदी करण्यात आली. तर मुंबई विद्यापीठ पुस्तक पेढी योजने अंतर्गत २१० पुस्तके खरेदी करण्यात आली. १४ ऑक्टोबर रोजी डॉ.ए.पी.जे.अब्दुल कलाम यांच्या जयंतीचे औचित्य साधून त्यांनी लिहीलेल्या पुस्तकांचे प्रदर्शन ग्रंथालयात भरवण्यात आले होते. तसेच डॉ.ए.पी.जे.अब्दुल कलाम यांच्यावरील भित्तीपत्रिकेचे देखील प्रदर्शन भरविले होते.

फ्रेंड्स ऑफ लायब्ररी क्लब व माझे ग्रंथालय ठाणे विभाग यांच्या संयुक्त विद्यमाने यावर्षी दोन कार्यक्रम आयोजित करण्यात आले होते. २९ एप्रिल २०१७ रोजी नयना वैद्य यांचा प्रेम योग हा कार्यक्रम तर रामदास खरे यांचा कॅलिडोस्कोप हा कार्यक्रम ९ सप्टेंबर २०१७ रोजी आयोजित करण्यात आला होता. यशवंतराव चव्हाण महाराष्ट्र मुक्त विद्यापीठाच्या यावर्षी बी.लिब. अभ्यासक्रमाकरीता २७ विद्यार्थी व एम.लिब. अभ्यासक्रमाकरीता ५० विद्यार्थ्यांनी प्रवेश घेतला. ग्रंथालय आणि माहितीशास्त्र निष्णात या अभ्यासक्रमाचे २०१७-१८ या शैक्षणिक वर्षाचे शिबीर दि. २५.१२.२०१७ ते २८.१२.२०१७ या दिवशी पार पडले. दररोज सकाळी ९.०० ते सायंकाळी ७.०० या वेळेत शिबीराचे आयोजन करण्यात आले होते.

दि. २५ डिसेंबर २०१७ रोजी सकाळी १०.०० वाजता या शिबीराचे उद्घाटन शिबीर तज्ञ श्री. संजय मोरे, ग्रंथपाल विलेपार्ले, चेतना हजारीमल कला व वाणिज्य महाविद्यालय बांद्रा व सौ. स्वप्ना गावडे, ग्रंथपाल साठये महाविद्यालय यांच्या हस्ते झाले. या शिबीरासाठी एकूण ३६ विद्यार्थी पूर्णवेळ उपस्थित होते. सर्व विद्यार्थ्यांचे प्रकल्प आराखडे मंजूर झाले. बी.लिब. व एम.लिब. अभ्यासक्रमाच्या विद्यार्थ्यांकरिता २० एप्रिल २०१७ रोजी एंग्लीम बँक ग्रंथालय येथे भेट आयोजित केली होती.

दिनविशेष या सदरामध्ये विविध थोर व्यक्तींच्या जयंत्या साजऱ्या करण्यात आल्या. यामध्ये सावित्रीबाई फुले (३ जानेवारी), स्वामी विवेकानंद (१२ जानेवारी), नेताजी सुभाष चंद्र बोस (२३ जानेवारी), महात्मा ज्योतीबा फुले (११ एप्रिल), स्वातंत्र्यवीर सावरकर (२८ मे), राजर्षी छत्रपती शाहू महाराज (२६ जून), अण्णा भाऊ साठे (१८ जुलै), लोकमान्य टिळक (२३ जुलै), डॉ. ए.पी.जे. अब्दुल कलाम (१४ ऑक्टोबर), इंदिरा गांधी (१९ नोव्हेंबर), साने गुरुजी (२४ डिसेंबर), बाबा आमटे (२६ डिसेंबर) आदी थोर व्यक्तींवर आधारित माहितीचे व पुस्तकांचे प्रदर्शन ग्रंथालयात भरविण्यात आले होते.

पर्यावरण विषयक विविध दिवस जसे मराठी दिवस आणि विज्ञान दिवस (२७, २८ फेब्रुवारी), जागतिक हवामान दिवस (२३ मार्च), जागतिक पर्यावरण दिवस (५ जून), जागतिक मित्र दिवस (३ ऑगस्ट), हिरोशिमा दिवस (६ ऑगस्ट), आंतरराष्ट्रीय खेळ दिवस (२९ सप्टेंबर), जागतिक टपाल दिवस (९ ऑक्टोबर), जागतिक आरोग्य दिवस (१० ऑक्टोबर), राष्ट्रीय एकता दिवस (३१ ऑक्टोबर) यावर आधारित माहितीचे प्रदर्शन ग्रंथालयात भरविण्यात आले होते.

## DEPARTMENT OF MATHEMATICS

### Celebration of Abel's birth anniversary

Department of mathematics celebrated Abel's birth anniversary on August 5, 2017. Students of T.Y.B.Sc took active participation for the celebration. Mr. Shiva Roy, Mr Dheeraj More and Mr.Ashok Yadav spoke on the life history and the contribution of Abel in the field of Mathematics. Following topics were discussed during the students' presentation:

#### Introduction of Abel:

The Norwegian Mathematician Niels Abel was born on August 5, 1802. At the age of 13, Abel was sent away from home to the Cathedral School in Christiana. Young Abel's enthusiasm for mathematical research problems amazed and impressed his teachers. As a student, Abel had a greater knowledge of mathematics than anyone else. In 1823, he made his scientific debut with the article published in scientific journal.

#### Contribution in the subject of mathematics:

Though Abel died at the age of 26, he left a large body of work including the first proof of the general binomial theorem, which had been stated by Newton and Euler. Abel is remembered for his discovery and proof of index theorem, bringing together topology, geometry and analysis and their outstanding role in building new bridges between Mathematics and theoretical physics. Abel played crucial role in shaping modern parts of mathematics including topology, geometry and number theory.



### Late Dr. V. N. Bedekar Memorial Colloquium Lecture on "Why Mathematics"

Late Dr. V. N. Bedekar Memorial Lecture on "Why Mathematics" was organised by Mathematics department on 9<sup>th</sup> December, 2017 at Patanjali Sabhagruha. The Chief guest for the lecture was Dr. Ajit Kumar, Associate Professor, Department of Mathematics, Institute

of Chemical Technology, Matunga, Mumbai.

Dr. Ajit Kumar started his talk by asking students to answer “Why Mathematics”. He explained the importance of Mathematics by quoting a verse from Sanskrit which describes Mathematics as queen of all sciences. Later, he quoted lines of famous Mathematicians explaining the importance of Mathematics.

Dr. Ajit Kumar explained importance of Mathematics in various subjects and fields like Physics, Engineering, Music, Architecture, Medicine, Economics and Finance, Defence, Environmental Science, Sports, Data Mining, Handwriting/Face Recognition etc. He also explained how Mathematics appears in nature with help of Fibonacci Sequence. Later he explained briefly Mathematics behind Page Rank Algorithm of Google Search Engine. He inspired students to take small projects on any applications or topic of Mathematics to inculcate research.

Total 8 teaching staff and 140 students of F.Y.B.Sc., S.Y.B.Sc and T.Y.B.Sc. attended lecture.



**Prof. Minal Wankhede**

## **Department of Physics**

**Activity: Guest lecture on “Wonderlands of 2-D material”**

**Name and Designation: Mr. Kapil Bhorkar, Project assistant at TIFR, Hyderabad.**

Number of student participants: 179

Number of Staff participants: 10

Total participants: 189

The lecture started with introduction to history of TMD's, their applications and current research on TMD's. He then explain how to make graphene using graphite at home. He also explain different techniques which includes Mechanical exfoliation, Wet chemistry, Chemical Vapor Deposition(CVD), Metal organic Chemical Vapor Deposition(MOCVD) and Molecular beam Epitaxy (MBE) to grow single layer graphene on any substrate. He also shares his experience of setting up CVD lab in TIFR Hyderabad.

Material science being new emerging technology which provides vast opening of careers in industries as well as research. The lecture helps student to get an idea about current research activities on TMD's and futuristic idea about it. Also through this collaboration is open with TIFR, Hyderabad.



**Activity: Physics carnival 2K18**

Number of student Participant: 350

Number of staff participants: 50

**Total Participants: 400**

Department of Physics of Our College celebrated 'Physics Carnival 2K18' on 16th and 17<sup>th</sup> Jan 2017. Physics carnival was inaugurated by Dr. Mrs. M. K. Pejavar, Principal of our college accompanied by S.Venkatraman, Vice-principal and A. Nair, Vice-principal of Junior College. Number of events were arranged during the two days in which we try to show Physics in day to day life.



## SANYUJA 2017-18

Realizing science past, present and future

Number of student participants: 183

Number of teaching staff participants: 13

Total participants: 196

In physics department, students explained physics behind day to day activities which includes explanation behind cornflower paste as non-Newtonian liquid, looping pendulum, Bernoulli's principle using Venturimeter, concept of refractive index using glycerin. In one section students explained experiments based on light such as spectrum using prism and grating, Fraunhofer diffraction, Michelson interferometer and normal Zeeman effect. One section was completely dedicated to modern physics where student gave information about LHC (Large Hadron Collider), CERN and sub-atomic particles and formation of white-dwarf, neutron star and Black hole.

A student from biotech department also participated in the event as volunteer to explain physics. Also some students from Joshi Bedekar College, commerce enjoyed the event.



**Prof. S. Venkatraman**

## Department of Statistics

Date: 8<sup>th</sup> December 2016

**Activity:** Industrial visit

**Industry :** International Institute of Population Science, Govandi

**Number of students participants:** 25

**Number of staff participants:** 3

Total Participants: 28



The aim of industrial visit is to enhance the basic knowledge of science students and to develop their analytical ability. Keeping this aim in mind an industrial visit was arranged for students from T.Y.B.Sc. to IIPS, Govandi.

The group of students reached the institute at around 11am where after initial formalities they were first introduced to the whole process and reaction involved in it by Mr. department of Population Science. The Objective of this visit was to expose students to various statistical field and research work they can do after graduation. The International Institute of Population Science presently offers Masters in Population studies, Masters in Bio-Statistics and Demography. M.Phil and Ph.D in Population studies. Their teaching are conducted both as regular, classroom course and through distance learning. Institute has a Computer Centre interconnected by LAN system.

The group of students reached the institute at around 11am with Tanzim Shaikh , Divya Nair and Manasi Narkhede from Statistics department where after initial formalities they were first introduced to Professor Dr. Kailash Chandra Das from Department of Migration and Urban Studies who gave lecture on various courses institute offers after the completion of graduation. He explained about 7 courses including distance course offered by institute. He gave a mere idea about the qualifying exams students need to clear to get a chance for studying in their institute. Once the students clear their qualifying exams and interview

institute will provide scholarships to qualified candidates. The students visited library with IIPS Assistant Librarian Mr. Kabampati Praveen Kumar where he explained students about library materials, their Online Public Access Catalog (OPAC), moving shelves and its need. Students got a chance to go through Statistics books. They even explained about the procedure of getting access in their library. Students saw the articles in Statistics and Statistical Yearbook. The qualified candidates get free access to their library

The students were very much excited and they asked many questions and participated with the utmost curiosity. This activity definitely helped them to realize how different the theoretical concepts and their practical applications are.

### **Parent-Teacher Meeting**

VPM's B. N. Bandodkar College, Department of Statistics has organized a Parent - Teacher meeting on Friday, 4<sup>th</sup> August, 2017 in Room no. 16 at 1.30 pm. The main purpose of meet was to create a common platform, where teachers and parents come together to enrich the student's educational experiences and discuss variety of issues, regarding all round development of students.

The meeting was organised under the guidance of Head of the Statistics Department, Dr. (Mrs) K. D. Phal. Teachers and parents of T. Y. B. Sc Statistics students attended the meet. Ms. Tanzim Shaikh, Ms. Divya Nair, Ms. Manasi Narkhede And Ms. Gulnaar Ravi were also present for the meeting.

The agendas of the meeting were,

- Welcome and introduction of teachers and parents.
- To convey the dates and syllabus of internal exam.
- To discuss about the importance of internal exam.
- To provide information about 75-25 semester pattern exam.
- To provide information about various student oriented activities run by college.
- To inform the performance of students in class test.
- Discussion about Students behavior, punctuality, and disciplines in classroom.
- To make parents aware about the career in Statistics. To inform them about the list of colleges providing post graduate degree in Statistics, also different option after B.Sc.

After the meeting, parents were offered a refreshments and Many parents personally interacted with the staff members with different student oriented issues.

All teaching, non-teaching staff and students worked hard for the success of the meet. Total 30 parents attended the meeting.

### **Project Presentation for T.Y.B.Sc Statistics students**

V.P.M's B.N.Bandodkar College, Department of Statistics has arranged presentation as

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a project work for T. Y. B. Sc Statistics on 15<sup>th</sup>, 17<sup>th</sup>, 22<sup>nd</sup>, 24<sup>th</sup>, 29<sup>th</sup> and 31<sup>st</sup> July, 2017 in T. Y. B. Sc Classroom (Room No. 16). Departmental Head Dr. (Mrs) K. D. Phal inaugurated the presentation by giving a brief idea about the application of Statistics. She narrated it by giving an example from our Indian epic called the Mahabharat where shakunimama used the biased dice to let duryodhana win the game which was nothing but the use of Statistics. Then she distributed the responsibility of assessing student's presentation among staff members Ms. Tanzim Shaikh, Ms. Divya Nair, Ms. Manasi Narkhede and Ms. Gulnaar Ravi.

Thus, begins the project work where students were selected on the basis of lottery method in the above mentioned dates. Students were allowed to choose the topic according to their wish. They presented topics related to Statistics and they had a brilliant knowledge in their topic. They presented it well. Their topics were History of Statistics, Infinite Monkey Theorem, Basics of Statistics, Basics of 6 sigma, Use of Statistics in social media, Use of Statistics in Sports, Quality Control, Statistics in Astronomy, Power series, Cluster Sampling, Use of Statistics in day to day life etc. The Head and staff members of Statistics Department guided Students in their presentation rectified their errors.

In this way their project work concluded on 31<sup>st</sup> July, 2017 where each and every staff discussed about the importance of presenting a topic on stage and its use in students future. This was followed by students sharing their own experience in presenting their project. The T. Y. B. Sc Statistics students concluded their project work by giving a vote of thanks to all Professor's of Statistics Department.

### “Sankhyotsav 2k17-18”

As per the culture of V.P.M's B.N.Bandodkar College Of Science, Thane. T.Y.B.Sc. students from Statistics Department arranged fest named “**SANKHYOTSAV 2K17-18**” on 8<sup>th</sup> September, 2017. The objective of this event was to provide platform for the students to showcase their talent with a competitive spirit and to get interacted with S. Y. B. Sc students.

The fest was held in 'Patanjali Sabhagruha', 3<sup>rd</sup> Floor, Bidg no. 6 at 11.00 am. Our T.Y.B.Sc Students had dress code for this fest which set the mood for the celebration. The dais had been decorated with statistical characteristics and the chief guest for this fest was our Statistics Department Retired Associate Professor “Mrs. Sudha Phatak”.

Our Principal Dr. (Mrs.) M. K. Pejaver and Vice-Principal Mr. S. Venkatraman, Dr. (Mrs.) K. D. Phal Head of the Statistics Department, Our chief guest Sudha phatak, Principal and Vice Principal declared the festival open with Garland the “Saraswati Maa” and lightning of the lamp and a beautiful ‘Saraswati Vandana’ a praise to Goddess Sharda singing in the background by our T.Y.B.Sc student Khushboo Bhavsar.

After this student Swati Tyagi (T.Y.B.Sc Student) who was the host for the day welcomed the dignitaries on dais and followed by Departmental Head Dr. (Mrs.) K. D. PHAL honored our Principal, Vice Principal and Guest by presenting plants to them.





Then was the opening speech by our Vice Principal who was asked to say few words about the use of Statistics in Physics. He encouraged students with his warm and motivating words. He made students understand the career in Statistics. He explained the term Statistics and its application in Physics. This was followed by the speech of our chief guest who was overwhelmed and was really thankful for welcoming her back to her college.

Then our honorable Principal was asked to say few words about her way of thinking towards Statistics subject. She narrated her experience towards Statistics subject in her academics and the Statistics helped in her Research work and Statistics was also helpful for her students. She also mentioned the importance of Statistics Department in college. This was followed by the speech of Head of the Statistics Department who encouraged students towards the importance of Statistics. She narrated Statistics like “Ice Berg” and said Statistics subject is Gem so one should try to explore it as much as possible.





### Guru Purnima Celebration, 2017

To honor the teachers, a program was organized by T.Y.B.Sc Statistics students on the occasion of 'Guru Purnima' on 08<sup>th</sup> July, 2017 at 1.30 pm in T.Y.B.Sc Statistics classroom (Room No. 16). The Program was commenced with Saraswati Vandana by students, Sonal Sonar and Khushboo Bhavsar. The students offered gratitude to the vedic tradition, describing the actual history laying behind celebrating Guru Purnima, the story of Eklavya and Dronacharya, that will guide countless generations to the light of pure knowledge within the self of everyone,. The teachers were honored with handmade greetings and gifts, while receiving gifts Dr. (Mrs.) K. D. Phal Head, Department of Statistics shared her experience of celebrating Guru Purnima with her family and teachers. The other members of Statistics Department named, Ms. Tanzim Shaikh, Ms. Divya Nair and Ms. Manasi Narkhede also shared their experience of celebrating this occasion in their childhood. This was followed by a speech stating the importance of Guru in one's life and sharing the experience of celebrating Guru Purnima by the students. Songs and shlokas in prestige of teacher's were sung. Students had arranged some games and foods for staff. The day glorified the traditional practice of honoring the 'Guru' who plays a vital role in shaping the career of the pupil. Dr. (Mrs.) K. D. Phal Head, Department of Statistics ended the program with a vote of thanks by expressing her gratefulness to all students who made this occasion a memorable day. She blessed her students with all way success in their life and the program concluded with gaiety all around.



Then the host welcomed Speaker of the day Mr. Nikhil Rathod, Statistical Assistant in District Deputy Registrar office at Thane and Statistics Department staff Ms. Divya Nair

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honored him by presenting a plant. Then he was asked to say about Career in Statistics. As he belongs to government sector he motivated students towards the statistical sections in Government sector. He explained the method of conducting the government exams and efforts required to clear those exams.

After the speeches, Swati Tyagi (host) announced next to start with the entertainment arranged

for S.Y.B.Sc, T.Y.B. Sc Statistics students and also for our alumni. Then the organizer of Stats

Fest started with their activities.

**Activity 1** was competition :

Round 1) Quiz competition

Round 2) Find me (searching Statistical words in cross word)

Round 3) Pehechan kaun (damsharas)

Round 4) Do or Die (write down formulas as much as you can)

**Activity 2** was Poetry, Song, Dance and Beat Boxing.

Vinay Naik (T.Y.B.Sc Student) wrote poetry in English, Marathi and Hindi and presented it. The meaning of the poem was powerfully and clearly conveyed to the audience. This was followed by the song sang by Khushboo Bhavsar (T.Y.B. Sc Student) , the dance performance by our alumni Mona Raut and last but not the least Beat Boxing done by Yash Hegde (S.Y.B.Sc Student). Everyone was amazed and spellbound after seeing their pleasing performances.



The winner of Activity 1 was felicitated by our chief guest Sudha Phatak.

Later our Statistics topper of the year 2016-2017 Priyanka Chauhan shared her experience and our alumni Mona Raut was thankful for welcoming her to this fest and she motivated S. Y. B. Sc students to conduct the fest in next academic year.

Our host Swati Tyagi requested Departmental staff Tanzim Shaikh and Manasi Narkhede

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to give a vote of thanks. Ms. Tanzim Shaikh thanked our honorable chief guest, Principal, Vice Principal and Statistics Department Head for spending their valuable time in attending Stats Fest. Their presence means a lot. This was followed by Ms. Manasi Narkhede expressing her gratefulness to all students who made this a memorable day. She blessed her students with all way success in their life and the program concluded with gaiety all around.



**Dr. Kalpana Phal**

## Department of Zoology

At the begening of academic year 2017-2018, Dept. Of Zoology conducted **Bridge Courses** for the students of T.Y.B.Sc. On various topics (Genetics, Molecular Biology, Calibration of laboratory instruments) in order to bridge the gap of certain previous concepts and current syllabus.

A Lecture on “Oceanographic instruments” by Mr. Siddhesh Bhawe was organised on 14<sup>th</sup> July 2017 where he had shared his knowledge and experience about Oceanographic instruments with T.Y.B.Sc. Students.

One day excursion was arranged for S.Y.B.Sc. Students to Taraporwala Aquarium on 28<sup>th</sup> July 2017, at Mumbai, where students interact with marine life and observe various beautiful marine creatures.

Department of Zoology Participate in Interdepartmental Activity Under DBT Star college scheem in event “Science – Past, Present & Future” on 11<sup>th</sup> August 2017. During event day students from various departments explores with department museum. The main attraction was live demonstration of chick embryo by using advanced dissecting microscope on projector.

A one day excursion to Matheran was arranged for T.Y.B.Sc. Students on 14<sup>th</sup> August 2017, under star college DBT scheem.

On 19<sup>th</sup> August 2017, one day excursion for S.Y.B.Sc. students under star college DBT scheem were conducted. Different places visited included Bhajanlal Dairy farm Kaman, Arnala Fish Market, Arnala Ice factory, and Arnala Fish landing station.

On 25<sup>th</sup> November 2017 Department of Zoology conducted the Parent-Teacher Meeting of S.Y.B.Sc. Students. During this meeting, parents were briefed on various departmental activity. Importance of regular attendance of students throughout the year was told.

On 2<sup>nd</sup> Decenber 2017 Department of Zoology conducted the Parent-Teacher Meeting of T.Y.B.Sc. Students. Importance of regular attendance of students throughout the year was told. All other curricular, co-curricular and extra curricular activities in which students can participate were explained. Attendance records of respective students were shown to the parents.

Excursion was arranged for S.Y.B.Sc. Students from 03<sup>rd</sup> December to 5<sup>th</sup> December 2017 at Dapoli.

Long Excursion was arranged for T.Y.B.Sc. Students from 4<sup>th</sup> January to 10<sup>th</sup> January 2018 at Gujarat. Different places visited included:

1. Little Ran of Kutch
2. Thol Bird sanctuary

3. Sabarmati Ashram
4. Nal Sarovar
5. Kankariya lake
6. Narara Marine national Park
7. Khijadiya Bird sanctuary

All T.Y.B.Sc. Students are engaged with project work in group and guided by faculty members. As it is part of curriculum all students take part in it actively. The project topics selected by students are as follows:

1. To analyzed the survival rate of patients with breast cancer in an around Thane urban area.
2. Effect of anthropogenic activities on lake in thane.
3. Impact of routine habits, occupation and certain diseases on dental health in the human population.
4. Study of butterfly diversity and density in V.P.M's Campus, Thane, Maharashtra, India.
5. Semi proximate composition of fresh and frozen marine fishes.
6. Effect of altitude and anthropogenic disturbances on species assemblages of *Anurans* at Matheran.



**Excursion T.Y.B.Sc. Students from  
4<sup>th</sup> January to 10<sup>th</sup> January 2018  
at Gujarat**



**Interdepartmental Activity Under  
DBT Star college scheme**

### **“Green Force Nature Club”**

The Zoology club has an endeavor to enhance the subject knowledge of the students (members) of our college. Aim of the club is to inculcate & nurture the sociological, scientific & humane application of the subject in student's day to day life; surroundings & society, through:



1. Popular lectures by competent expertise.
2. Interactive sessions.
3. Various activities at college level such as competitions, comprehension, photography, outings, news articles and journals, film shows etc .

Dr. Meena Venkatraman wild life researcher renowned for her studies in Asiatic Lions inaugurated “Green Force Nature Club” of zoology department , VPM’s B.N.Bandodkar college of science on Saturday, 5<sup>th</sup> August 2017. The theme for this year is “Youth for Wild life Conservation”. The club aims to propagate the concept of conserving the wildlife. Undergraduate students of zoology department showcased “**Art Gallery**’ and ‘**Wall Painting**’ on wildlife theme. Dr. Meena Venkatraman presented her work on Asiatic lions from Gir forest, Gujarat. She narrated her experience and observations on social structure, reproductive behavior, human conflict and conservation strategies of lions at Gir forest which was followed by dialogues and discussion on lions. The topic was very interesting and new experience for the participants. Principal of the college addressed the participants about the contribution of institute in conservation of wildlife. Coordinator of nature club along with teaching faculty discussed the programmes to be conducted for the academic year 2017 – 2018.

Human evolution is one of the interesting topic among biological science. Many of us study this topic in text book only. But there are few people who devoted their whole life in wandering and studying fossils of our ancestors. One among such people is Dr. Yann Montelle, Anthropologist, New Zealand. Dr. Yann Montelle delivered the talk on “Recent Development in Human Evolution” on 14<sup>th</sup> December 2017 at Patanjali Auditorium, B. N. Bandodkar College of Science, Thane which was organized by Green Force Nature Club, Department of Zoology, B.

N. Bandodkar College of Science, Thane.

After a brief introduction by Agarkar sir, Dr. Yann began his lecture with how Adaptation and Natural selection are responsible for evolution. He also focuses on how researchers consider peripheral evidences found with bones during fossils study. During evolution how human being coming from his monkey like ancestors was explained very nicely with short clip.

He also explains how researches update the fossil records of various human species till date with updated timeline and evolutionary tree. The explanation about tool making by our ancestor with real time demo and its usability make attention towards the topic.

In the last session of his talk, he explained the wall painting of the Chauvet cave by our ancestors and the story about Battle between the Boy, the Bear and the Wolf with fossilized evidences in a cave.

Dr. Yann is himself a researcher in this field. He goes to caves to collect samples and conduct studies based on them. Hence he had many personal experiences to share. He has a good oratory.

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So he could put forth his points systematically and forcefully.

He said India has a great potential to contribute to the field of archeology and anthropology. In his opinion a very little grant from international agencies came to India. He proposes to undertake work in India in the near future.

At the beginning of secession a talk by Shrividya Madam, Principal, VPM's TMC Law College, Thane, about various acts in technology and privacy make important additions in knowledge.

More than 200 people, including student and staff from various departments of the college attended the talk. Overall the program got a very good response and Green Force Nature Club, Department of Zoology, B. N. Bandodkar College of Science, Thane aims to come up with more such activities in future.



**Dr. Meena Venkatraman,**  
wild life researcher



**Dr. Yann Montelle,**  
Anthropologist, New Zealand

**Dr. Madhuri Pejaver**

## Department of Biotechnology and Microbiology

### International Conference

Department of Biotechnology and Microbiology had organized International conference on 'Emerging Technologies for Sustainable Agriculture' on 6<sup>th</sup> and 7<sup>th</sup> January 2017. The conference was held at Thorle Bajirao Peshwe Sabhagruha, VPM Campus, Thane.

To prepare students for the International conference, **Pre- conference lecture series** was organized. On 2<sup>nd</sup> January 2017 Dr. Jayashree Pawar elaborated on the topic '**Introduction to Agriculture related Molecular Biology Tools and Techniques**'. She threw light on different 'omics' technologies and significance of each of them. She described the 'yet uncultured', so called 'novel' bacteria and their use as a gold mine for various applications.

On 3<sup>rd</sup> January 2017, Dr. Jayashree spoke on '**GPCRs- basics to advances**'. She elucidated the biology of Rice Blast fungus *Magnaporthe oryzae*, and the role of G Protein Coupled Receptors (GPCRS) in the infection process. She stressed on current situation wherein abundant sequence information is available in the database, while biological significance of them is not known, thus necessitating *in silico* analysis. Dr. Jayashree also shed light on conventional Sanger's sequencing technique as compared to next Generation Sequencing (NGS) technologies.

On 5<sup>th</sup> January 2017, Dr. Malali Gowda, Professor, Transdisciplinary University (TDU), Foundation of Revitalization of Local Health Traditions (FRLHT), Bangalore; and Director, Genomics Laboratory, Center for Cellular and Molecular Platforms, Bangalore, delivered lecture on "**Genomics Discovery from cell to space to predict past and future life events**". Dr. Malali is the recipient of Dr. A P J Abdul Kalam Environmental Award in recognition of his activities on Biodiversity Conservation & Research for the year 2006-2007; and Ramalingaswami Fellowship (2010) of the Department of Biotechnology in recognition of his outstanding research contributions. In his lucid talk, he elaborated on breakthrough discoveries in genome research and their long term impact.

### Parents' meetings

**Parents' meeting for F.Y.B.Sc, S.Y.B.Sc and T.Y.B.Sc** Biotechnology and Microbiology class was arranged on 4<sup>th</sup> February 2017. The meeting was started by screening short AV of International conference 'Emerging Technologies for Sustainable Agriculture' ICONTESA 2017 organized by the Department. The main agenda for the meeting was to update parents about the departmental activities and achievements and updating them with changed rules regarding attendance and status of their ward. The parents were informed about students' achievements in state level Olympiad and TIFR competitive examination.

**Parents' meeting for SY and TY Biotechnology and Microbiology students** was arranged on **29<sup>th</sup> July, 2017**. Dr. Kalpita Mulye and Dr. Jayashree Pawar addressed the meeting on behalf of teaching staff. Parents were informed about achievements of students who bagged gold medal at the 29<sup>th</sup> International Young Scientist Fair and Contest at Denmark; and also nine students of the Department who have been selected through different competitive exams.

**Parents' meeting for first year Biotechnology and Microbiology students** was arranged on **16<sup>th</sup> September, 2017**. Dr. Kalpita Mulye addressed the meeting on behalf of teaching staff. Parents were informed about basic intention of having regular parents meeting every semester. The format of First year Biotechnology as standalone subject and FY microbiology was explained along with marking structure.

### **Competitive Exam Preparation**

The Department had organized **orientation lecture for competitive exam preparation** by Dr. Jayashree Pawar, on **22<sup>nd</sup> April 2017**. Dr. Jayashree gave detailed information regarding various opportunities for Life Sciences students after graduation. She elaborated on various competitive exams like **JGEEBILS, JAM, JNU, JNCASR, CUCET, NIV, CFTRI** etc. along with paper pattern of these exams. Her speech was followed by students' interaction with Mr. Subhash Khatri, the T.Y.B.Sc. student who has got selected for the integrated Ph.D. course at T. I. F. R., Mumbai in current year. He elaborately explained preparation for the written exam, writing of SOP, and the 'Dos and Don'ts' to be followed during the TIFR interview. He urged the students to focus on clearing concepts during regular studies. He requested them to introspect and find out their exact liking to decide future career path.

**Guidance Session by alumnus:** The Department had organized **guidance lecture by Alumnus Ms. Chinmayee Shukla on 6<sup>th</sup> June 2017**, who had **cleared competitive exams during last academic year, and currently pursuing M.Sc. Biotechnology in M.S. University, Baroda**. Ms. Chinmayee guided the students regarding preparation for different competitive exams. In her talk, she narrated her PG course life in Baroda and underlined the national competition that she faced and enjoyed with her peers coming from different parts of country from Jammu to Trivandrum. She stressed on the importance of developing the conceptual understanding of the subject. She elaborately explained the whole selection procedure and also how selection criteria differ according to the institutions. Her speech was followed by an interactive session wherein the students asked questions regarding her plans, studies abroad, exams and Institutions to be considered while applying.

**Guidance lecture by alumni of the Department, Mr. Aditya Chhatre (pursuing MSc in TIFR), Mr. Aditya Khandwilkar (pursuing MSc from National Institute of Virology, pune; JNU exam rank 70, OBC category), Ms. Shewta Khandibharad (JNU exam rank 8, SC category) on 24<sup>th</sup> June 2017**. They guided the students regarding preparation for different competitive exams. Mr. Aditya Chhatre stressed on the importance

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of developing the conceptual understanding of the subject as well as having an inquisitive spirit. He elaborately explained the whole selection procedure at TIFR, with a narration of his interview at this esteemed Institution. Mr. Aditya Khandwilkar while guiding the students mentioned about the changed format of NIV entrance exam.

Conversation with these alumni was followed by **felicitation of and talk by students of current batch who have cleared competitive exams, Mr. Yash Deshpande, Mr. Subhash Khatri, Ms. Kajal Naukaria, Mr. Subhasini Singh, Mr. Nikhil Pahelkar, Mr. Shubham Tiwari, Mr. Kevin Kambli.** This was followed by an interactive session wherein the students asked questions regarding exams and Institutions to be considered while applying.

**Ms. Rucha Kulkarni**, Assistant Professor of the Department, who had cleared JNU exam after her graduation, and would be joining Advanced Centre for Treatment, Research and Education in Cancer (ACTREC) after clearing exam and interview for the same, also guided the students.

**Felicitation of students who won medals in International Category at the at “unge forskere”, the International ‘Young Scientist Fest and Contest’ held at Copenhagen, Denmark, in April 2016 and 2017** was organized on **24<sup>th</sup> June 2017**. The event was open for students of all Departments. **Mr. Yash Deshpande and Ms. Kajal Naukaria, who bagged Gold medal** in the contest in 2017, explained their work on the research project “Hidden Treasure from Vermiwash as an Agricultural Boon” guided by Dr. Kalpita Mulye, Dr. Jayashree Pawar and Ms. Zahera Momin. They elaborated on their journey during their research work, along with their colleagues Mr. Subhash Khatri and Ms. Praniti Ghatmale. They also mentioned the efforts taken on making the poster and the importance of style of presentation during the competition. They mentioned that around 2500 Danish people including students visited their stall. They were quite excited while sharing that the Prince of Denmark visited their stall and enquired about their project. Principal Dr. Mrs. M. K. Pejaver also shared her experiences. In her talk she gave all details about how well planned, thoughtfully organized event it was. She also highlighted how research spirit inculcated in the College help in the performance at such international event. Dr. Kalpita Mulye read out the Jury’s comments on the project.

### **Orientation lecture for workshop on Innovative learning resources**

The Department has planned a workshop to create novel learning tools that would facilitate students’ learning making it appealing and more joyful. Dr. Kalpita Mulye, conducted first orientation lecture of the workshop for the Second and third year students of the Department. Students were made to share their views regarding conventional learning and with a presentation they were made aware how creativity may bring a blissful learning experience.

### **Training and Consultancy**

**Training And Consultancy To BATU Students:** The Department of was involved in



providing **training and consultancy** for '**Determination Of Antimicrobial Activity Of Silver Nanoparticles**' to Mr. Kishor Sable, M. Tech. student of Babasaheb Ambedkar Technological University, Lonere, Raigad, on **24<sup>th</sup> and 25<sup>th</sup> April 2017** in Biotechnology laboratory. Dr. Jayashree Pawar, Dr. Kalpita Mulye and Ms. Zahera Momin were involved in providing the consultancy. The student appreciated organization of the course in the feedback form.

**Training and Consultancy to IBDP students Smt. Sulochanadevi Singhania School:** The Department was involved in providing **training and consultancy** to following students of **Smt. Sulochanadevi Singhania School, Thane** for their projects **under International Baccalaureate Diploma Programme (IBDP)** on **3<sup>rd</sup> and 4<sup>th</sup> November 2017** in Biotechnology laboratory. Dr. Kalpita Mulye, Dr. Jayashree Pawar, Ms. Zahera Momin and Dr. Ashwini Tilak were involved in providing the consultancy.

#### **'Meditation Session'**

The Department had organized meditation session by **Dr. Ashwini Tilak**, Assistant Prof. of the Department, for teaching and nonteaching staff of the Department. In her speech, Dr. Ashwini not only explained the importance and benefits of meditation in today's busy life, but also conducted a practical session on 'one minute relaxation technique' that can be practiced even at work place. All the teaching staff members and five non-teaching staff members of the Department, and Ms. Rinku Das Dave, College Counselor, attended the session that was conducted on **17<sup>th</sup> April 2017 in Microbiology laboratory**.

#### **Late Dr. V. N. Bedekar memorial colloquium lecture**

The Department hosted the first invited talk of this academic year for Late Dr. V. N. Bedekar memorial colloquium lecture series on 8<sup>th</sup> July 2017. The guest of honor was Dr. Ajit Datar, Advisor, Shimadzu Corporation. The topic he chose to elaborate, titled "career opportunities in biological and chemical science"

The great orator- Dr. Datar started his talk by addressing the difference in a Job and a Career. He congratulated the students for choosing science faculty that has ample scope in numerous fields. In one of his slides, he enlisted different field alphabetically from A to Z, and made everyone realize the career platter that is offered to a science graduate. He enlisted different research institutions in India which are CSIR and ICMR recognized and engaged in Quality research and contributing positively to science and technology development. Many organizations located in remote places in Maharashtra like pomegranate research institute at Solapur and having specialized focus areas were also told to students. He advised students to be ready to go and grab the opportunity to work in good laboratories irrespective of whether they are located in Mumbai or outskirts or even outside state. His talk went to next level, when he advised students "if one wants great life one must follow 'Five S Model' comprising being sincere, studious, strong, social and very importantly spiritual". The session ended with question answer session.

### Industrial Visits

**Industrial Visit to Common Effluent Treatment Plant, August 2017:** An industrial visit for S. Y. B. Sc. Microbiology was organized on 11th August 2017 to CETP (Common Effluent Treatment Plant) at Koparkhairane. The students were explained the functioning of the plant by Mr. Mahesh Patil. The session was interactive and students participated very actively in the discussion asking fine details of the process. The batch was then taken to the open terrace of the building from where the entire plant could be viewed.

**Industrial visit to Pune-Mahabaleshwer:** The Department had organized an excursion visit to three institutions in Pune and Wai on 6, 7 and 8<sup>th</sup> December, 2017. The excursion included three industrial visits, viz., **KF Bioplants, Manjari, Pune, Kisan Veer Sugar industries Bhuij, Satara, and Wild Berries winery at Wai MIDC.**

**Industrial visit to Pune:** The Department had organized an industrial visit to two institutions in Pune on 15<sup>th</sup> December, 2017. Students visited **mushroom cultivation plant in Pune as well as** Department of Physics and Institute of Bioinformatics and Biotechnology (IBB), University of Pune.

### Nav-Sanjeevana: A Tribute to Indian Women Scientists

To celebrate Navaratri in a novel manner by paying tribute to Indian women scientists, and to inspire young minds, Department of Biotechnology and Microbiology has organized campaign: NAV SANJEEVANA- the display of information of nine Indian women scientists in the main entrance lobby of B. N. Bhandarkar College of Science. The display includes vital discoveries and inventions by Indian women scientists having significant contribution to Biological Sciences, namely, Dr. Janki Ammal, Dr. Kamla Sohoni, Dr. Maharani Chakravorty, Dr. Paramjit Khurana, Dr. Mitali Mukherji, Dr. Yamuna Krishnan, Dr. Vidita Vaidya, Dr. Shubha Tole. These nine representative women scientists, who have given 'sanjeevani' (meaning, immortality) to research in Indian Biological Sciences, would serve as 'role models' for the students and staff. The idea has been worked upon by F. Y. B. Sc. Biotechnology students under the guidance of Dr. Kalpita Mulye and Dr. Jayashree Pawar. The posters would be displayed throughout the nine days of Navratri, from 21<sup>st</sup> September to 29<sup>th</sup> September 2017.

### Guest lecture

**Dr. Gaurav Mehta**, Postdoctoral Research Associate with Dept. of Radiation Oncology, Rutgers Cancer Institute of New Jersey, and a young entrepreneur was invited as a resource person on 14th Dec. 2017. He has been honored with prestigious awards, 'Gallo Award for Outstanding Research Work', Rutgers Cancer Institute of New Jersey in 2017, and the 'Robert Whiteford Memorial Scholarship Award', University of Toledo in 2015. He delivered a talk on "Increasing role of nutrition in the development of lifestyle diseases". In his lucid speech, he explained about his new encounter with 'nutraceuticals'. At the end he took the students through his journey since undergraduate student of biotechnology till date.

### Journal and Movie Club

The Department had conducted the first Journal and Movie Club activity in two sessions, wherein the first session was conducted on 5<sup>th</sup> July 2017 and second session was conducted on 12<sup>th</sup> July 2017.

Activity	Student's Name	Class	Topic
<b>Journal Club</b>	Laxmi Y	T.Y.B.Sc Sanket J	Vaginal delivery of carboplatin loaded Biotechnology thermosensitive hydrogel to prevent local cervical cancer recurrence in mice
	Gayatri D Aishwarya I	T.Y.B.Sc Biotechnology	Increase fitness of rice plants to abiotic stress via habitat adapted symbiosis- A strategy for mitigating impacts of climate change
	Manasi P Ratnaprabha K	T.Y.B.Sc Biotechnology	Pretherapeutic coating for medical device that prevents the attachment of <i>Candida albicans</i>
	Rutuja M Shivani K	T.Y.B.Sc Microbiology	Synthetic blood
<b>Movie Club</b>	Nahida S Namrata M	T.Y.B.Sc Biotechnology	Bioconcrete- A self healing cement.
	Aishwarya G Surabhi R	T.Y.B.Sc Biotechnology	PCOS- A diabetic factor
	Nihira D Sejal K	T.Y.B.Sc Biotechnology	Mechanism of action EBOLA virus
	Prajakta U Mrunal P	T.Y.B.Sc Microbiology	CAR T-Cell Immunotherapy for cancer

The session created zeal in the audience. There was a question- answer session after each activity to scaffold the development of their understanding regarding the topic and led to the effective discussion of the same. The session was judged by two teachers, Ms. Rutuja Gaikwad and Ms Sayali Daptardar who raised questions to ignite reasoning and understanding levels of the participants.

The Second Journal & Movie Club Activity of the semester was organized by the Department on 13<sup>th</sup> September 2017. The 'Debate' activity was added newly to encourage students to express their views on the current affairs related to the field and give them the holistic view of pros and cons of the possible outcome of the same. The topic of the debate was: **"We can sequence our whole genome. But should we?"** Two groups expressed

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their views on the topic effectively giving insights to future advantages and disadvantages of the same. The students from the audience also gave valuable inputs to the discussion. Teachers of the department also raised few questions to fuel their logical reasoning. This was followed by two movie and one journal activity. The topics and names of the students is as follows:

Sr. No.	Name of the Student	Class	Activity	Topic of Presentation
1	Ankita Patil	S Y Biotech	Debate	Yes, We should sequence our whole genome
2	Dipti Dudhade	S Y Biotech		
3	SurajSawant	S Y Biotech		
4	Iqra Rizwi	S Y Biotech		
5	Gautami Kambli	S Y Biotech		
6	Chaitra Kulkarni	S Y Biotech		No, We should not get our whole genome sequenced.
7	SanjanaZende	S Y Biotech		
8	K. Sahiti	S Y Biotech		
9	Indraneel Chipalkatti	S Y Micro		
10	Neha Rajput	S Y Micro	Movie	Monoclonal antibodies for the treatment of Crohn's Disease
11	ChaitaliDode	S Y Micro		
12	Sanica Kulkarni	S Y Micro	Journal	Rapid Protein Display Profiling of Cancer Progression Directly from Human Tissue using a Protein Biochip
13	HarshaliKhochare	S Y Biotech	Movie	Zika Virus & Its Infection
14	Rachana Gupta	S Y Biotech		

**Dr. Kalpita Mule**  
Head of the Department

# Committee Reports







## **Alumni Association: Anubandh**

Academic year 2017-18 was a grand year for our Alumni Association: Anubandh, conducted 8 meetings till December 2017.

We had organized a Grand Get Together of all Alumni members was held on 10th September 2017. On this occasion all retired teaching staff were also invited. A total 215 Alumni were present. On this occasion, our alumnus and Film Director Mr. Viju Mane presented a musical drama titled “मनातल काही काहीही”. Our Principal Dr. M. K. Pejaver enlightened the audience and interacted with the students. Alumnus from 1999 batch Mr. Pushkar Tambe was the comparer for the entire programme. Vice Principal and alumnus of our college Prof. Venkatraman proposed vote of thanks.

From this academic year our Alumni members have taken the initiative and started delivering the lectures to our present students. Mr. Pushkar Tambe (1999 Batch) and Dr Prasad Karnik (1984 batch) actively participated in this activity.

Alumnus from 1984 batch Mr. Abhay Marathe actively participated in Blood Donation Drive organized by our NSS and NCC Unit.

The constitution of Anubandha was adopted by The Alumni Association of B. N. Bandodkar College of Science, Thane was formed on 16<sup>th</sup> December 2017. The Executive committee is in the process of being constitution. One of our alumnus, Pooja Mhatre, has expressed her feelings in the form of poetry.

### **अनुबंध**

अजून त्याच जामेवर असेल का अशोकाचे झाड  
अजूनही मंत्र तोच असेल परीक्षा असल्यावरच पुस्तक बाहेर काढू  
अजूनही शेड मध्ये मागून डोकावत असेल का मधुमालती ?  
अजूनही मजला येत असेल का मुलांना करता वर खालती ?  
कदाचित अजूनही नावळाचं झाड तसंच वळून पाहत असेल  
अजूनही बाजूची ट्रेन त्याच जोशाने जोरात जात असेल  
अजूनही कट्ट्यावर साजरे होत असतील कित्येक सण  
अजूनही आठवून कॉलेज डेज पाणवत असतील कित्येक जण  
अजूनही तिथे मैत्रीच्या कित्येक कळ्या फुलत असतील  
अजूनही कागदी फुले वा-याच्या झोक्याने हळुवार झुलत असतील  
अजूनही दरवळत असेल गुस्स्या शिकवीणीचा सुमंध  
अजूनही काढता आठवणी घट्ट होतात हे अनमोल अनुबंध

**Mrs Kadambari Manjarekar**

Coordinator

Alumni Association

## **Cultural Comittee Report**

### **Workshop on Acting**

On 1st August 2017, workshop on acting was organized by Cultural Association in Patanjali Sabhagruha. Around 70 students attended the workshop. The chief guests for workshop were Mr. Ashwin Bornare (theatre artist) and Mr. Shrikant More (mimicry artist).

The workshop began at 2pm in Patanjali auditorium with lamp lighting ceremony. Anchors welcomed our chief guest and introduced them. Our cultural coordinator, Dr. Prakash Mali sir said a few words and felicitated our guests with gifts. Students enjoyed the program as they came to know various concepts of theatre skills. The workshop ended at 4.30pm in the evening with the thanksgiving session.

### **Bandodkar Katta: Rakshabandhan**

The Programme Rakshbandhan was organized by NSS and Cultural Association on 7th August, 2017. Cultural and NSS volunteers celebrated this day by tying Rakhis to some teachers and non-teaching staff of the college. Girl volunteers also tied Rakhis to CIDCO bus conductors and drivers with an idea that they will keep them safe during all bus journeys. They also tied Rakhis to the trees on the campus to give the message 'Save trees and environment'. The programme was great success and around 50 volunteers participated in the event.

### **Mangalagaur Celebration**

Mangalagaur was celebrated by Cultural Association at Panini hall on 18th August, 2017. Chief guest for this event was Dr. Sumedha Bedekar and members of Sanskar Bharati presented various cultural programmes. Our Principal, Dr. Mrs. M. K. Pejaver, Cultural Coordinator Dr. Prakash Mali, teaching and non-teaching staff also took part in this programme. Students had a great fun that day. Around 50 volunteers and 25 teaching and non-teaching staff enjoyed the event.

### **50th Intercollegiate Youth Festival**

On 21st August 2017, 50th Intercollegiate Youth Festival of Mumbai University, Zonal level was hosted by Mumbai University, Thane, Balkum. Our college participated in events which included Music, Theatre, Fine Arts and Literary arts. We won 2nd prize in Marathi skit, 2nd prize in One Act and 3rd prize in Mono act. Also, we secured 1st prize in debate, 3rd prize in Elocution and 3rd prize in debate (Marathi). In the final round, our student Miss Pallavi Bulakhe won consolation prize in Mono Act (Marathi) organized by University of Mumbai.

### **Inauguration of Cultural Association 2017-18**

On 23rd August 2017, Cultural Association was officially inaugurated for the academic year 2017-18. Around 80 students attended the ceremony held in Patanjali Sabhagruha. Chief guest for the event was Mr. Apurva Ranjankar, T.V. artist- Zee Yuva (yuvagiri).

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The event began at 1.30pm in Patanjali Sabhagruha with lamp lighting ceremony. Anchors welcomed the chief guest and introduced him. This was followed by various recreational musical and dance performances. Our Cultural coordinator, Dr. Prakash Mali sir felicitated and invited Mr. Apurva on the stage. He then went on to hold an interactive session with the audience by sharing his experiences from the film industries.

The programme ended around 4.00pm in the evening with a thankyou note by the anchors.

### **Teacher's Day Celebration**

On 6th September 2017, Cultural Association along with NSS volunteers celebrated Teacher's day in the college. The programme was organised in Patanjali Auditorium. Games like on the spot prize, damsharads, fishing etc were organised. More than 20 teachers participated in the event and enjoyed it very much. The programme started at 10.30am in the morning and ended at 11.30 am without disturbing any lectures and practical timings.

### **Mangalagaur Event for Japanese**

On 7<sup>th</sup> September 2017, Cultural Association along with the office staff of the college organised a Mangalagaur event for Japanese students. The students along with their teacher from Japan were called as chief guests for the event at Patanjali Sabhagruha.

The event started at 2.00 pm with the welcome and ceremonial lamp lighting session by our Principal, Dr. Mrs. M. K. Pejaver. This was followed by felicitation of the chief guest by the principal. After which different traditional dances were performed by the degree college students and a Japanese song was sung by a student from the college. Staff members then joined in for the refreshing Mangalagaur games where even the Japanese students were asked to join in. It was a very successful event and around 50 students from our college participated and attended the function. The event ended around 4.00 pm in the evening with a thank you note by the anchors

### **Sugam Sangeet Spardha**

Shree Swami Samartha Sugam Sangeet Spardha was held on 19th September 2017. The competition was organised by Cultural Association at 2.30pm in Patanjali Auditorium. Chief guest for the day was Mrs. Trupti Sonawane (professor at Joshi Bedekar College). The program began with lamp lighting by the Chief Guest, the Vice Principal and the Cultural Coordinator.

Around 15 teachers including our Vice Principal were present. The crowd sung and clapped to encourage our participants. As declared by the judge, 1st prize was given to Sameer Jha from FYJC, 2nd prize was won by Khushboo Bhavsar and the 3rd by Sayed Anam Fatima. The consolation prize was given to Durgesh Chavan (1st) and Priya Singh (2nd). The winners were felicitated with certificates and medals.

### **AAKANKSHA – INDRAYUDH**

Aakanksha festival started from 8<sup>th</sup> of Dec but the preparation for the festival was started

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in November itself. Our days started from 8<sup>th</sup> of Dec & continued till 17<sup>th</sup> of Dec. Each day had specific importance. It started from Khaadi divas followed by twins day, Group identity day, Saree and Tie day, Chocolate day, Bollywood day and Traditional day .

This year festival included lots of competitions like literary, arts, beauty and makeup ,music, dance, personality hunt, fashion show ,acting ,etc this events held between 18<sup>th</sup> Dec to 23<sup>rd</sup> Dec 2017.

### LITERARY

On 18<sup>th</sup> Dec we had literary competitions such as Debate, Elocution, Poetry Reciting, Love letter writing. Debate, Elocution and poetry reciting took place in Patanjali auditorium and love letter writing took place in class room. Judge for Debate, Elocution and Poetry reciting was Mr.Pankaj Chavan

1<sup>st</sup> prize in Debate was given to Ms.Himagauri loke and Ms.Reena Patil ,2<sup>nd</sup> prize to Mr.Satish Pandey and Ms.Nyle Gaikwad.

1<sup>st</sup> prize in elocution was given to Mr.Jitendra Dalvi ,2<sup>nd</sup> prize was given to Ms.Shikha Singh and Ms.Riya Rajdhar & 3<sup>rd</sup> prize to Mr. Raj Khandagale.

1<sup>st</sup> prize in poetry reciting was given to Pranali Dhangar, 2<sup>nd</sup> prize was given to Vinay Naik and 3<sup>rd</sup> prize to Riya Rajbhar.Consolations were given to Jitendra Dalvi and Soni Varma .

1<sup>st</sup> prize in love letter writing was given to Shivani Kasnurkar, 2<sup>nd</sup> prize was given to Rutuja Mhatre and 3<sup>rd</sup> prize to Nikita Devashi.

**Treasure hunt** was conducted on 19<sup>th</sup> of Dec. Out of 98 groups 5 Groups were selected for the finals. Final Group to win was Jitendra Savkar and Group.

### ARTS

On 20<sup>th</sup> Dec we had arts events this includes poster making, greeting card making, cartooning and rangoli. Events were conducted in botany and zoology labs from 9:00 am to 2:00 pm. Art events observed a lot of participation this year. Approximately 17 participants in cartooning were present. Students presented their creativity on paper in various forms like 3D art, Poster making was a newly added event this year but even though it became successful as 12 participants competed with each other. Poster making wear a combination of creativity and arts. Greeting card making holds 12 participants. Variety of greeting cards were seen such as explosion box, pop up cards etc.

Paper quilling was another newly added event this year.10 participants shown their talent in this event. Great ideas and artwork in the form of paper quills were seen. Rangoli event was also under this section which also hold large participation and talent was shown by students.

1<sup>st</sup> prize in rangoli Solo was given to Ms. Khushboo Bavsar ,2<sup>nd</sup> prize was given to Ms.Shikha Singh. and 3<sup>rd</sup> prize to Ms. Pranita Ambre. Consolations were given to Ms. Dhanashree Apage and Shweta Shinde. Rangoli Group 1<sup>st</sup> Prize Ms. Prajakta Ughade and Group 2<sup>nd</sup> Ms. Shivani Kasnurkar and Group. 3<sup>rd</sup> Sanika Mahadik and Group and Consolation to Pooja Mahadik and Group



## SANYUJA 2017-18

1<sup>st</sup> prize in poster making was given to Sayali Tawde, 2<sup>nd</sup> prize was given to Swapnali Deotale.

1<sup>st</sup> prize in Photography Samrat Godambe, 2<sup>nd</sup> Prize Vedant Kasambe, 3<sup>rd</sup> Minar Salvi. Consolations to Gaurav Patkar and Samrita Patkar.

1<sup>st</sup> prize in greeting card making was given to Netra Patil, 2<sup>nd</sup> prize was given to Alfiya Khan and 3<sup>rd</sup> prize to Riya Sane. Consolations were given to SAMrita Patkar and Ishwari Mahakalkar.

1<sup>st</sup> prize in cartooning was given to Rucha More, 2<sup>nd</sup> prize was given to Shweta Shinde and 3<sup>rd</sup> prize to Aditya Gaonkar. Consolations were given to Sayali Taware and Aditi Tatkare.

1<sup>st</sup> prize in paper quilling was given to Isha Bhore, 2<sup>nd</sup> prize was given to Vaishnavi Vedaga and 3<sup>rd</sup> prize to Shwetali Pawar. Consolations were given to Manali Kotkar.

### BEAUTY AND MAKEUP

On 21<sup>st</sup> Dec 2017, makeup and beauty events were conducted. It involved events like tattoo making, nail art, bridal makeup, mehendi and hairstyle. Events were conducted in zoology lab from 9:00 am to 5:00 pm. Approximately 45 participants in mehendi competition. In tattoo making 12 participants and in nail art 10 participants compete with each other. This year around 20 participants participated in Bridal makeup and around 15 students participated in Hairstyle.

All the events were judged by **Mrs.Suhasini Dahiwalé & Ms.Meena Makhwana.**

1<sup>st</sup> prize in **tattoo making** was given to Prajakta Koli, 2<sup>nd</sup> prize was given to Jui Pawar and 3<sup>rd</sup> prize to Sneha Lanjekar. Consolations were given to Diksha Gaikwad & Mrunali Sansare.

1<sup>st</sup> prize in **nail art** was given to Manjiri Mhatre, 2<sup>nd</sup> prize was given to Rucha Shinde and 3<sup>rd</sup> prize to Sayali Tawde.

1<sup>st</sup> prize in **Bridal makeup** was given to Pranita Ambre 2<sup>nd</sup> prize was given to Diksha Tirwadkar and 3<sup>rd</sup> prize to Rupali Singh. Consolations were given to Afreen Shaikh & Rida Ghawte.

1<sup>st</sup> prize in **Mehendi** was given to Shaikh Iqra, 2<sup>nd</sup> prize was given to Shaikh Mohsina and 3<sup>rd</sup> prize to Zule Aqsa, Consolations were given to Firdaus Mansoori & Afreen Shaikh.

1<sup>st</sup> prize in **Hairstyle** was given to Rukkaiya Dadan, 2<sup>nd</sup> prize was given to Tejaswini Kumavat and 3<sup>rd</sup> prize to Pranali Vishe.

The event was summarized by giving a token of love & appreciation to the judges.

### INAUGURATION OF AAKANKSHA 17-18.

The dawn of 22<sup>nd</sup> December was done by the inauguration of our annual cultural fest in Botany Lab by honorable Principal Dr.Mrs.Madhuri Pejavar Mam & Vice principal Dr.Prof.Venkatraman Sir.

## SANYUJA 2017-18

### STAGE EVENTS

On 22<sup>nd</sup> of Dec 2017 , music event was started at 10:00am. The event began with lamp lighting and saraswati puja by principal Mrs.M.K.Pejava and chief guest.

**Music:** .Ms.Jayshree Karambalekar and Ms.Ashwini Tilak were invited as judge .30 entries were registered in music solo and duet event out of these 16 participants were selected for solo and 4 pairs of participants were selected for duet

1<sup>st</sup> prize in **MUSIC SOLO** was given to Durgesh Chavan ,2<sup>nd</sup> prize was given to Khushboo Bhavsar and 3<sup>rd</sup> to Satish Pandey .Consolations were given to Sheetal Pardeshi and nyle Gaikwad

1<sup>st</sup> prize in **MUSIC DUET** was given to Nyle Gaikwad and Sheetal Pardeshi, 2<sup>nd</sup> prize was given to Pranali Dhangar and Khushboo Bhavsar

**Personality hunt: Mr. Akshay Patil** was the judge of the event Personality Hunt.

Out of 25, 8 contenders were selected for the finals. In which the title of Mr. Bandodkar was given to Mr. Bhushan Shendkar and Miss. Bandodkar was given to Miss.

**Dance:** Ms. Neha Dixit and Mr. Gaurav were invited as judge. 21 students were participated in solo dance. 17 pairs participated for duets out of which 10 were selected for the finals. And 8 group performances were selected.

1<sup>st</sup> prize in Solo Dance Shwet 2<sup>nd</sup> prize Aditi Desai 3<sup>rd</sup> prize Ms. Chetna Jangle

1<sup>st</sup> prize in Dance duet Ms. Chetna Jangle-Ms.Vaishnavi Mayekar 2<sup>nd</sup> Prize Ms Payal-Mr. Vasim Tadv. 3<sup>rd</sup> prize Ms. Rasika –Mr Soham.

Dance Group 1<sup>st</sup> prize Friends Group 2<sup>nd</sup> Prize Chavat Boys 3<sup>rd</sup> Prize Rockstars Group.

On 23<sup>rd</sup> Dec the day 2 of Aakansha Festival started

**Acting: Mr. Ashwin Bornare** was the judge for acting event.

There were 13 performances selected for the finals of Acting event.

Skit 1<sup>st</sup> prize Ashish Varma and Group and Consolation Prize to Darshan Patil and Group.

Standup 1<sup>st</sup> Prize to Miss. Jagruti Singh and 2<sup>nd</sup> Prize to Mr. Bhushan Shendkar and Consolation Prize to Mr. Tanmay Bombe.

**Fashion Show: Miss. Anagha Aarolkar and Mr. Chirag** were the judges for Fashion Show.

4 Groups participated in the event. 1<sup>st</sup> prize Indrayudh Group and 2<sup>nd</sup> Prize to Devils and Angels Group.

**Dr. Sudesh Rathod**  
Cultural Co-ordinator

## **DLLE REPORT**

36 students enrolled in this program from U.G classes. They opted for program like SWs social status of woman in society a survey project , Cp career project to interview the professional from different fields of profession and make a report for career guidance. Students also volunteered the APY Annapurna Yojna entrepreneur skill development program the served variety of snacks during the college cultural fest Aakansha 2017 23rd and 24th December. Thus understanding costing and profit gaining skills this was good experience for the students.

### **WORKSHOP ON ENTREPRENEUR SKILL DEVELOPMENT**

Workshop on ACRALIC DECORS was held on 12<sup>th</sup> September 2107 from 1.00pm onwards in ZOOLOGY laboratory. The aim was to give lessons of skill development to make and sell the items for self sustenance. 35 students and 9 staff members attended the work shop. Variety of ACRALIC DECORS were made my students and staff under the guidance of our Alumni Mrs. Smita from 2001 zoology batch. It was hands on training program.



**RAW MATERIAL**



**Hands on Training**



**CO-ORDINATOR.  
DR. Mrs. VINDA MANJARAMKAR**

## **Employment Cell Report**

- A lecture “Acquire the Required” by Pushkar Tambe, Director & Senior Surveyor with Troupe 7 Consultants Pvt Ltd was organized on June 24, 2017 and July 15, 2017. Around 125 and 137 students of TYBSc and SYBSc attended the same respectively.
- A lecture on “Research Avenues” by Dr. Jayashree Pawar was organized on July 01, 2017 to encourage students about What is Research? And How to be a Good Researcher?
- A lecture “Sleep Healthy Be Healthy” by Dr. Prasad Karnik, Incharge of Thane Sub Campus was organized on July 08, 2017. Around 95 students of SYBSc and TYBSc attended the same.
- A lecture on “How to prepare for UPSC and MPSC Examination” by Shri Santosh Rokade, Under Secretary, GAD, Mantralaya was organized on August 12, 2017. Around 194 students of SYBSc and TYBSc attended the same.
- A lecture on “How to prepare for Career” by Brightways was arranged on September 09, 2017. Around 50 students were present for the same.
- A lecture “An Hour with Principal” was arranged on January 06, 2018 where Principal Dr. Mrs. M. K. Pejaver shared here views about how College had contributed in the Personality development of students. Around 112 students attended the same.

Co-ordinator  
**Prof. Abhijit Kale**



## GYMKHANA REPORT

We started our Gymkhana Indoor activities from 05<sup>th</sup> June 2017.

### Selection of Gymkhana Secretary

Mr. Badgujar Abhijeet Bhagwat (T.Y.B.Sc./Biochemistry, Div. 'A'. PRN No:- 2015420542) was selected as Gymkhana Secretary for the year 2017-2018.

### Participation of Students in various Competitions

About 240 students from Junior and Degree College participated in Group Events as well as Individual Events in tournaments / competitions arranged by Zilla Parishad, University and State Level.

### **Group Participation and Achievements**

#### **1] Chess Tournament**

Our Degree college team participated Inter-Collegiate Level in Chess Tournament organized by University of Mumbai.

Our Junior College boys team participated in District Level. **Bansode Shivaprakash Hanamant S.Y.J.C./A/11 & Nikam Srushti Anil F.Y.J.C./D/75** both are selected for Division level.

#### **2] Cricket Tournament**

Our Degree college team participated Inter-Collegiate Level in Cricket Tournament organized by University of Mumbai.

Our Junior College boys team participated in District Level Tournaments organized by T.M.C. Both team were under the guidance of our cricket coach Mr. Kiran V. Salgaonkar.

#### **3] Table Tennis Tournament**

Our Degree college Boys team participated in Table Tennis Inter-Collegiate Tournaments organized by University of Mumbai.

Our Junior college Boys & Girls team participated in Table Tennis Organized by T.M.C.

#### **4] Athletics**

Our Degree College Men & Women participated in Inter collegiate Athletic Meet organized by University of Mumbai

Our Junior college boys & Girls participated in Athletics Meet. **In Athletic Meet Khade Omkar Tarachand \S.Y.J.C.\ A.(800mts run), Narute Krishna Satish F.Y.J.C.\A/248 (5KM. RUN), Mane Tanmay Santosh F.Y.J.C\ A\251 (Long jump, Triple jump)** are selected for Division level.

## SANYUJA 2017-18

### 5] **Football**

Our Degree college Boys team participated in Football Tournament organized by University of Mumbai.

Our Junior College team participated in Football Tournament organized by T.M.C.

### 6] **Kho – Kho**

Our Degree college Boys team participated in Kho - Kho Tournament organized by University of Mumbai.

Our Junior College Boys & Girls team participated in Kho - Kho Tournament organized by T.M.C.

### 7] **Taekwondo**

*Our Degree College Student participated in Taekwondo competition organized by University of Mumbai .*

Our Junior College Boys participated in Taekwondo Tournament Organized by T.M.C. Khan Hamiuddin Mahiuddin S.Y.J.C./D/429 selected for Division level.

### 8] **Carrom**

Our Degree college Men and Women team participated in Inter collegiate Carrom Tournament organized by University of Mumbai.

Junior college Boys team participated at District Level Carrom Competition Organized by T.M.C.

### 9] **Badminton**

Our Degree college Men and Women team participated in Inter collegiate Badminton Tournament Organized by University of Mumbai.

Our Junior College Girls & Boys team participated in District level in Badminton Tournament organized by T.M.C.

### 10] **Swimming**

Our Junior College Boys & Girls participated in Swimming Competition. organized by T.M.C.

**Satam Abhishek Rajan S.Y.J.C./B/220 (50fly\50Free style) selected for Division level.**

### 11] **Gymnastics**

Dandekar Neha Samir (T.Y.B.Sc.) Selected for All India level University of Mumbai Team.

### 12] **Volleyball**

Our Degree college Men team participated in Inter collegiate Volleyball Tournament organized by University of Mumbai.

## SANYUJA 2017-18

Our Junior College Boys team participated in Volleyball Tournament organized by T.M.C.

### 13] Kick Boxing

**Hadapad Rutik B. F.Y.J.C./A/358 ,Ghodake Mayuresh A. F.Y.J.C./B/357 Selected for Division Level Kick Boxing Tournament**

### 14] Karate

Our Junior College Boys & Girl's participated in District level. **Jadhav Akshita Mahesh S.Y.J.C./A/71 was Selected for State Level** in karate Competition

### 15] Wrestling

One of our Junior college Boy participated in Wrestling Competition organized by T.M.C. **Bhagat Rohit Sahebrao F.Y.J.C./A/173 Selected for Division Level Wrestling Tournament .**

### 16] Shooting

Our Degree college Boys participated in Shooting Competition organized by University of Mumbai.

### 17] Kabaddi

Our Degree college Men team participated in Inter collegiate Kabaddi Tournament organized by University of Mumbai.

Our Junior College Boys & Girls team participated in Kabaddi Tournament organized by T.M.C.

### 18] Boxing

Our Degree college Boys participated in Inter collegiate Boxing competition organized by University of Mumbai.

### 19] Judo

Our Junior College Boys & Girl's participated in Judo Competition organized by T.M.C.

### 20] Sketting

One of our Junior College Boys participated in Sketting Competition organized by T.M.C. **Patil Rohan Rahul F.Y.J.C./C/425 and Tambade Atharva Vijay F.Y.J.C./B/337 (quad) Selected for Division Level Sketting Tournament. Patil Rohan Rahul F.Y.J.C./C/425 (Inline) also**

**Selected for State Level Sketting Tournament**

## SANYUJA 2017-18

### Annual Sports Activities

Indoor Activities were held from **27<sup>th</sup> November 2017 to 14<sup>th</sup> December 2017**.

**Annual Athletic Meet** was organized on **20<sup>th</sup> December 2017** on college ground.

447 Students and 126 Teaching & Non-Teaching members participated in various events.

### General Championship was awarded to the following Students

Students Name	Junior / Degree College	Class & Roll No.
Patil Darshan Ramchandra	Degree College	T.Y.BSc./A/2015420101
Mane Tanmay Santosh	Junior College	F.Y.J.C./A/251
Patil Komal Naresh	Degree College	T.Y.B.Sc. /B/ 2013420552



Prof.P.G.Bamane  
Coordinator  
Gymkhana Committee

## जागर जाणिवांचा अभियान - एक सामाजिक बांधिलकी

जागर जाणिवांचा अभियान अंतर्गत प्रत्येक वर्षी विविध कार्यक्रमांचे आयोजन केले जाते. व विद्यार्थ्यांच्या मनामध्ये सामाजिक बांधिलकी तसेच समाजात घडणाऱ्या घटनांचा आढावा घेऊन नेमके विद्यार्थ्यांनी कोणती कृती केली पाहिजे याची जाणीव करून दिली जाते. इतकेच नव्हे तर शैक्षणिक, सामाजिक, सांस्कृतिक, शासकीय कृतीचा जागर करण्यात आपले महाविद्यालय नेहमीच अग्रेसर ठरलेले आहे.

कारण केवळ विद्यार्थ्यांच्यात नव्हे तर पालक, शिक्षक, शिक्षकेतर कर्मचारी यांना ही आपल्या जागर बद्दल अभिमान आहे. आजची पिढी कुठे ही विचलित होऊ नये म्हणून चांगल्या विचारांचा सन्मान करून स्त्री पुरुष समानता कशी राहील याचे भान राखताना विद्यार्थी दिसतात. महाविद्यालयात जागर हा अभियान निरंतर असावा ही संकल्पना आपल्या महाविद्यालयाच्या प्राचार्या डॉ. माधुरी पेजावर मंडमचीच आहे. आणि म्हणूनच विद्यार्थ्यांनी समाजात जनजागृती करून एक वेगळाच ठसा उमटविला आहे. मग ते मतदार नोंदणीच्या माध्यमातून विविध राबविल्या जाणाऱ्या स्पर्धा असोत अथवा पथनाट्याच्या माध्यमातून मतदारांना जागृत करणे असो. विद्यार्थी सदैव तत्पर असताना दिसतात. त्याच बरोबर 'रस्ता सुरक्षा अभियान' हा रायझिंग डे असो प्रत्यक्ष पोलीस चौकात जाऊन ट्रॅफिकचे नियम व त्याला लागू असणारे कलम याची माहिती करून घेणे व स्वतः गर्दीच्या वेळी रस्ता जाम असतो तर आपली भूमिका ही ट्रॅफिक कंट्रोल करण्याची असली पाहिजे. मद्य प्राशन करून गाडी न चालविणे, दिवा पाहूनच रस्ता क्रॉस करणे, नो एन्ट्री मध्ये गाडी न लावता नियमांचे पालन करणे अशा विविध नियमांचे प्रशिक्षण घेतले व महाविद्यालयात त्याचे पथनाट्य ही सादर केले गेले.

त्याचबरोबर डॉ. वैष्णा यांनी १९ नोव्हेंबर २०१७ रोजी अवयवदान या विषयावर व्याख्यान देऊन विद्यार्थ्यांच्या ज्ञानात भर घालून एक आगळा वेगळा जागर केला त्या म्हणाल्या की आपण मृत्यूनंतर शरीरातील किडनी, हृदय, डोळे जसे दान करतो तसेच आपण शरीरावरील आपली त्वचा दान करू शकतो. ही त्वचा तीन वर्षांपर्यंत ठेवून वापरू शकतो. त्याचे फायदे ज्यांना भाजले असेल किंवा कोणत्याही स्कीन सर्जरी साठी अत्यंत उपयुक्त ठरू शकते. व्याख्यानानंतर विद्यार्थ्यांनी बरेच प्रश्न विचारून शंकेचे निरसन केले व त्वचादान साठी दिलेल्या वेबसाईटवर विद्यार्थ्यांनी स्वतःहून नाव नोंदणी करून एक आगळा वेगळा जागर केला.

त्याच बरोबर भारतीय संविधान दिन २६ नोव्हेंबर रोजी भारतीय संविधान दिनाचे औचित्य साधून एनसीसी एनएसएस व जागर जाणिवांचा अभियानांतर्गत रॅलीचे आयोजन करून महाविद्यालय परिसरात जनजागृती केली. पाणी वाचवा, पाणी जिरवा या मोहिमेत पाण्याचा कसा वापर करावा त्यासाठी महाविद्यालय परिसरात रॅली काढून नागरिकांमध्ये जनजागृती केली. त्याचबरोबर पोलीस कमिशनर मॅरेथॉन ठाणे २०१७ मध्ये जवळपास १५० विद्यार्थ्यांनी सहभाग घेतला. आरोग्य उत्तम ठेवण्यासाठी दौड ही गरजेची आहे हे सांगण्यासाठी पोलीस आयुक्त परमवीर सिंह, माननीय मुख्यमंत्र्यांच्या पत्नी अमृता फडणवीस व ऋतिक रोशन, सुनील शेड्डी अशा दिग्गज कलाकारांनी संदेश दिला.

तसेच मुलुंड येथे वायुशक्तीचे प्रदर्शन झाले. त्यामध्ये ही कनिष्ठ महाविद्यालयाचे १५० विद्यार्थ्यांनी सहभाग



नोंदविला. त्यातून विद्यार्थ्यांना सर्व वायुसेनेच्या हत्यारांचे प्रदर्शन पाहायला मिळाले. आकाशात उड्डान घेणाऱ्या युद्ध विमानांचे वेगवेगळे प्रकार पहायला मिळाले.

त्याच बरोबर रक्तदान, विद्यार्थी दिवस, वाचन प्रेरणा दिवस, अब्दुल कलाम यांना अभिवादन, भारतरत्न डॉ. बाबासाहेब आंबेडकर यांना ही अभिवादन करण्यात आले. त्याच बरोबर विशेष मिशन इंद्रधनुष महानगरपालिकेच्या लसीकरण मोहीमेत सहभाग घेऊन जागर करण्यात आला. त्याच बरोबर गणपती विसर्जनाच्या वेळी शिस्तीचे पालन करण्यासाठी विद्यार्थ्यांनी मदत केली व स्वतः ट्रॅफिक कंट्रोल करण्यासाठी चौकाचौकात थांबून सहभाग नोंदविला त्याचबरोबर विद्यार्थ्यांमध्ये स्वसंरक्षण व्हावे यासाठी ज्युडो कराटे चे प्रशिक्षण देऊन व प्रात्यक्षिक दाखवून मुलांमध्ये व मुलींमध्ये छेडछाड प्रकरणात कसा धडा शिकवला पाहिजे याचे प्रात्यक्षिक दाखवण्यात आले व विद्यार्थ्यांमध्ये जागर करण्यात आले. मिशन ठाणे सिटी च्या माध्यमातून हेल्मेटचा जागर केला. माधवबागच्या Multidisciplinary Cardiac care clinic and hospital च्या माध्यमातून जागर, एनसीसी, एनएसएस च्या सहभागाने हृदयाशी संबंधित माहिती देऊन यासाठी कोणती खबरदारी घ्याल याविषयी डॉ. अनिल यांनी विद्यार्थ्यांना व शिक्षक व शिक्षकेतर सहकारी यांना माहिती देऊन जागर केला.



**प्रा अनिल आठवले**

समन्वयक

जागर जाणिवांचा अभियान

## **Literary - Association**

### **मराठी भाषा व वाङ्मय मंडळ**

**Literary - Association** म्हणजेच मराठी भाषा व वाङ्मय मंडळाच्या सहकार्याने २०१७-१८ या शैक्षणिक वर्षामध्ये विविध कार्यक्रमांचे आयोजन केले गेले. वक्तृत्व स्पर्धा, वादविवाद स्पर्धा, निबंध स्पर्धा, कविता लेखन स्पर्धा, काव्य वाचन स्पर्धा, कथाकथन तसेच नाट्याभिनय कार्यशाळा, मराठी भाषा पंधरवडा त्याचप्रमाणे आंतरमहाविद्यालयीन विविध स्पर्धामध्ये आपल्या पदवी व कनिष्ठ महाविद्यालयातील विद्यार्थ्यांनी उत्स्फूर्तपणे सहभाग नोंदविला. कु. अक्षय पाटील, कु. प्रणाली बोरकर, कु. प्रणाली धनगर, कु. योगिता पडवेकर, कु. पल्लवी सिंग इत्यादी नावे या स्पर्धामधून विजेता म्हणून घोषित झाली.

**Literary - Association** ची कु. योगिता पडवेकर ही सचिव आणि कु. पल्लवी सिंग ही सहसचिव आहे.

बांदोडकर विज्ञान महाविद्यालय हे मुंबई विद्यापीठातील एकमेव सर्वोत्कृष्ट विज्ञान महाविद्यालय आहे. तरीही सभा संमेलने व व्यासपीठे गाजवताना यातील विद्यार्थी भाषा व कलाप्रांतात ही आपले कौशल्य दाखवताना दिसले. मग ते मुंबई विद्यापीठाचे युथ फेस्टिव्हल असो कि रामभाऊ म्हाळगी प्रबोधिनी. आपल्या भाषेच्या विद्यार्थ्यांनी नेहमीच आपली चुणुक दाखविली तसेच पोलिसांची वाहतूक सुरक्षा सप्ताहाची कामगिरी ही आपल्या भिक्तीपत्रके, भिक्तीचित्रे या स्पर्धामधून पूर्ण केली.

एकंदरीत हे वर्ष साहित्य भाषा स्पर्धा यांची रेलचेल होती.

Co-ordinator  
**Lt. Bipin Dhumale**

## **NCC REPORT**

### **ADMINISTRATIVE FRONT**

CDT Nitesh Zilu Gaonkar was appointed as Senior Under Officer(SUO).

CDT Ashok Jeetbahadur Yadav and CDT Prayag Ajit Mhetre was appointed as Junior Under Officers(JUO).

CDT Sujit Suraj Bhosale was appointed as company sergeant master.

CDT Akshay Subhash Ambre was appointed as sergeant of the unit.

JUO Prayag Ajit Mhetre represented NCC in the student council of B.N.Bandodkar college of Science, Thane.

### **ENROLLMENT DRIVE**

Enrollment of cadets commenced on July 2017. Eligible candidates of VPM campus participated with enthusiasm and completed the vacancies available.

### **TRAINING**

Apart from regular training parades which are conducted in the college cadets also participated in various regional national and international camps and allied activities, glimpses of which are given below

#### **CATC CAMPS**

- 12 Cadets participate in CATC WHICH WAS HELD AT KHADAVALI IN JUNE 2017
- 6 CADETS PARTICIPATED IN CATC which was held at TMV Nashik in oct 2017

#### **GROUP LEVEL CAMPS**

- 5 cadets participated in pre TSC camp which was held in Nasik in july 2017
- 6 cadets participated in pre RDC camp which was held in nasik in oct 2017

#### **STATE LEVEL CAMP**

- 2 cadets were selected in TSC IGC which was held in Amravati
- 1 cadet was selected in TSC CAT 1, CAT 2 and CAT 3.
- 6 Cadets were selected in IGC RDC which was held in Aurangabad
- 4 cadets were selected for RDC CAT 1
- 2 cadets were selected for RDC CAT 2
- 1 cadet was selected for RDC CAT 3
- CDT Rajesh Gaikwad participated in BASIC LEADERSHIP CAMP held at Kolhapur

#### **NATIONAL CAMPS**

- CDT Rushikesh Tukaram Dhane represented Maharashtra at ALL INDIA THAL SAINIK

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CAMP which was held at New Delhi.

- SUO Nitesh Zilu Gaonkar represented Maharashtra at NATIONAL INTEGRATION CAMP which was held at Varanasi.
- SGT Akshay Subhash Ambre participated in OTA ATTACHMENT CAMP which was held at OTA kamptee.
- JUO Prayag Ajit Mhetre participated in ALL INDIA SHIVAJI TRAIL TRECK which was held at Kolhapur.
- JUO Ashok Jeetbahadur Yadav represented Maharashtra at NATIONAL INTEGRATION CAMP which was held at Sikkim namchi.
- SUO Nitesh Zilu Gaonkar participated in ADVANCE LEADERSHIP CAMP which was held at Trichy, Tamil Nadu.
- CSM Sujit Suraj Bhosale represented Maharashtra at NATIONAL INTEGRATION CAMP which was held at Nashik.
- CDT Shubham Nandkishor Nilkanth represented Maharashtra at REPUBLIC DAY CAMP which was held at NEW DELHI.
- CDT Nitin Ganajan Suroshe, CDT Rahul Madhukar Kambre, CDT Abhijeet Shivaji Barkade represented Maharashtra at PM's Rally which was held at NEW DELHI.

### PARTICIPATION IN OTHER ACTIVITIES

- Our cadets took part in INTERNATIONAL YOGA DAY celebration this program was held at PATANJALI AUDITORIUM of VPM's B.N. Bandodkar college of science
- They took part in BLOOD DONATION program held at Bandodkar college.
- They also took part in the TREE PLANTATION program which was held at mumbra on 1 july 2017
- They took part in BUNKER BUSTING program which was held at Stanislaus school in BANDRA.
- NCC ARMY BOYS ASC THANE UNIT adopted a village in vikramgad we conducted 7 days camp from 26 december 2017 to 1 january 2018. In this adoption camp we conducted Yoga Sessions, Adventure Activities, Shramdan, Swatchata Abhiyaan and various competition like sports, drawing etc related to the welfare and awareness of those village kids
- Our unit conducted various programs like **Water Conservation Day, Shahid Divas, Being Responsible Citizens , Road Safety, Swatch Bharat Abhiyaan, Rakhi for Soldiers, Crowd Control, Adventure Treck, Constitution Rally, AIDS Awareness Rally.**

Co-ordinator  
Lt. Bipin Dhumale

## **NCC Army Girls Report**

The enrolment for the NCC Army Girls had started this year in the month July, 2017. We enrolled 15 III year cadets, 21 II year cadets and 24 I year cadets. We started our official parades from the month of August.

Our college conducted Obstacles Training Practice for 45 cadets who are trying for Thal Sainik Camp. Our Obstacle Course was provided by our VPM to 1 MAH Girls Bn for two days. Our Commanding Officer, Col N Mukherjee, visited our college on 1<sup>st</sup> August, 2018 and observed the obstacles practice and training for TSC Cadets.

Our Cadets had attended various State Level as well as National Level camps. The details are as follows :-

- (1) CATC(TSC I) :- Camp was held at Ambarnath from 13<sup>th</sup> June to 22 June 2017. 22 Cadets participated in the camp.

Juo Priyanka Shinde, Cdt Shruti Itadkar, Cdt Siddhi Breed were awarded silver medals for Guard of Honour.

- (2) CATC(TSC II) :- Camp was held from 20<sup>th</sup> July 2017 to 29<sup>th</sup> July, 2017 at Ambarnath. 14 Girls cadets participated in the same.

- (3) CATC (TSC III) :- Camp was conducted at Ambarnath from 30<sup>th</sup> July to 8<sup>th</sup> August, 2017. Nine cadets participated in the camp.

Cdt Bhakti Vaiti, Cdt Aparna Kokate secured medal in Group Dance Competition and Cdt Shruti Itadkar secured medal in Solo Dance Competition.

- (4) CATC TSC IGC :- Camp was conducted at Kolhapur from 8<sup>th</sup> August 2017 to 17 August, 2017. Cdt Shruti Itadkar and Cdt Anjali Jangir participated in the camp.

Three cadets attended RDC Practice Training conducted at Somaiya College from 19<sup>th</sup> September 2017 to 4<sup>th</sup> October, 2017.

- (5) PRE RDC I :- Camp was Conducted at Trimbak Vidyamandir, Nasik from 7<sup>th</sup> October, 2017 to 16<sup>th</sup> October, 2017. 4 cadets participated in the camp.

Juo Priyanka Shinde was the Camp Senior. She was awarded with Silver medal for Camp Senior.

- (6) PRE RDC II :- Camp was conducted at Trimbak Vidyamandir, Nasik from 22<sup>nd</sup> October, 2017 to 31<sup>st</sup> October, 2017. Four cadets participated in the camp. Our ANO Capt Madhavi Joshi received DO Letter from the Camp Commandant Col K. S. Kondal regarding her active contribution in the Camp Activities.

- (7) RDC IGC :- Camp was held at Aurangabad from 3<sup>rd</sup> November, 2017 to 12<sup>th</sup> November, 2017. Juo Priyanka Shinde, Cdt Jyoti Mehete, Cdt Shruti Itadkar and Cdt Anushka Barase participated in the camp.

- (8) National Integration Camp :- Our Cadet Meenal Gorule had attended NIC Camp held at Kamrang, Namchi, South Sikkim from 29<sup>th</sup> November, 2017 to 10<sup>th</sup> December, 2017.



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She participated in Group Dance and awarded with Silver medal.

- (9) National Integration Camp :- Our Cdt Sandhya Mane and Cdt Tejswini Walajkar had attended NIC Camp held at Nasik from 23<sup>rd</sup> December, 2017 to 2<sup>nd</sup> January 2018. They were selected for EXPA Activity in the Camp. EXPA is Exchange Participant Association. It is the training of Comprehensive All Round Development and Enrichment imparted to our cadets.
- (10) CATC :- Camp was held at Ambernath from 8<sup>th</sup> January 2018 to 17 January 2018. Three cadets of our unit participated in the Camp. They actively participated in the Silent Drama named Unity in Diversity. They won first prize for the drama.

### SOCIAL SERVICE ACTIVITIES :-

- (1) On 21<sup>st</sup> June 2017, Our cadets participated in the International Yoga Day organised by our College.
- (2) On 1<sup>st</sup> July, 2017, Tree plantation Programme was conducted in our College Campus. 30 Cadets participated in the programme.
- (3) On the occasion of RAKSHA-BANDHAN Our NCC Army Girls, Naval Unit and Army Boys Prepared Rakhi for "SOLDIERS" and written postcards for soldiers who are fighting on the borders.
- (4) On 2<sup>nd</sup> October 2017, Gandhi Jayanti was celebrated. Swacchata Abhiyan Week was celebrated. Cadets clean the College Campus. We also conducted Poster Making and Essay Writing Competition on 2nd October, 2017.
- (5) On 26<sup>th</sup> November 2017 NCC Day was celebrated in our College. We also celebrated Constitutional Day on the same date.

A Guest Lecture was arranged on the topic Guidance for CDS Exams and how to join Armed Forces. Shri Anil Kankan delivered the speech for the cadets. We arranged the Rally on the same occasion in our college campus.

- (6) On 6<sup>th</sup> December Drill Competition was organised in our college by NCC Naval Unit. Around 300 cadets participated in the programme.
- (7) On 16<sup>th</sup> December a CAPSULE for B & C Certificate Exam was organised in our College for NCC Army Girls Unit. SUB D Vishwanth guided our cadets regarding the exams.
- (8) On 20<sup>th</sup> December, 2017, 1 MAH Girls BN organised Guard of Honour Competition at Birla College. Our 8 Cadets participated in the Competition. They had given their Best Performance.
- (9) On 24<sup>th</sup> December 2017, NCC Boys Unit has Organised a TREK to KALSUBAI Peak. 23 Army Girls Cadets participated in the Trek. ANO Capt Madhavi Joshi, ANO Lt Bipin Dhumale, Prof Athawale and 50 NCC ARMY Boys and girls Cadets climb the KALSUBAI PEAK Successfully.

### EXAM RESULT :-

Our "B" Certificate Examination Result is 100% for the year 2017.

Our "C" Certificate Examination Result is 100% for the year 2017.

**ANO Capt Madhavi Joshi.**

## **NSS REPORT**

### **Brief report of NSS activities.**

- 1) 07<sup>th</sup> June, 2017. Blood donation camp was organized by JJ Blood Bank at Thane station. 15 volunteers actively present in donation camp. 80 blood bags were collected during blood donation camp.
- 2) 21<sup>st</sup> June, 2017. Yoga Day was celebrated by our college in Patanjali Auditorium. 15 volunteers were present in yoga session.
- 3) 28<sup>th</sup> June, 2017. World Anti toxic Day was organized by Nashabandi Mandal Maharashtra Rajya at Ravindra Natyamandir, Dadar. 20 volunteers went to this programme. Devendra Nage was guest for this programme.
- 4) 1<sup>st</sup> July, 2017. Tree plantation was organized by TMC at Kausa, Mumbra. 50 volunteers were participated in Tree Plantation.
- 5) 1<sup>st</sup> August 2017. NSS orientation was organized by NSS unit at Patanjali Auditorium. Around 106 volunteers were present for the session.
- 6) 3<sup>rd</sup> Aug, 2017. Our volunteers sold 100 Rakhis which were made by mentally challenged children.
- 7) 4<sup>th</sup> Aug, 2017. Cleanliness drive in our college campus was conducted by our NSS unit. Around 45 volunteers were present for activity.
- 8) 5<sup>th</sup> Aug, 2017. Cleanliness drive in our college campus was conducted by our NSS unit. Around 40 volunteers were present for activity.
- 9) 5<sup>th</sup> Aug, 2017, Rakshabandhan was celebrated by our volunteers. Volunteers tied Rakhis to trees and TMT workers. 65 volunteers were actively involved in the celebration.
- 10) 5<sup>th</sup> Aug, 2017. On the occasion of Rakshabandhan our volunteers sent Rakhi with message to soldiers. 70 volunteers wrote messages to soldiers.
- 11) 8<sup>th</sup> Aug, 2017. Programme on Waste Management Training was arranged in NKT college by University of Mumbai. 5 volunteers were sent to this programme.
- 12) 11<sup>th</sup> Aug, 2017. On the occasion of Yuva Day Rangoli competition was organized in VPM's Bedekar college by Civil Hospital. 5 volunteers participated in this competition.
- 13) 12<sup>th</sup> Aug, 2017. Yuva Day Rally was organized by Civil Hospital. Programme on "Andhashraddha Nirmulan" arranged in NKT college. 65 volunteers were present and actively involved in activity.
- 14) 15<sup>th</sup> Aug, 2017. On Independence Day Flag hoisting in our college campus. 105 volunteers were present for flag hoisting.
- 15) 22<sup>nd</sup> Aug, 2017. E-waste collection was organized by EVS department. 20 volunteers brought e-waste and submitted to their respective department.
- 16) 30<sup>th</sup> Aug, 2017. On the occasion of Ganpati Visarjan our 20 volunteers went to help Traffic Police.
- 17) 1<sup>st</sup> Sept, 2017. Traffic Awareness Programme was organized by Traffic Police in

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Patanjali. Police Officers were present for this programme.

- 18) 5<sup>th</sup> Sept, 2017. On 10<sup>th</sup> Day of Ganapati Visarjan our 30 volunteers went to help for Traffic Police.
- 19) 4<sup>th</sup> Sept, 2017. Programme on women empowerment was arranged in Patanjali by Women Development Cell. 30 volunteers were present for this programme.
- 20) 6<sup>th</sup> Sept, 2017. On the occasion of Teacher's Day an event was organized in Patanjali by NSS unit and cultural association for Teachers.
- 21) 24<sup>th</sup> Sept, 2017. NSS Foundation Day was celebrated by hoisting NSS flag in college campus. Felicitation event was arranged in Patanjali Auditorium. 160 volunteers were present and actively involved in programme.
- 22) 28<sup>th</sup> Sept, 2017. Old clothes collection drive was organized in our college campus. 30 NSS volunteers were present for sorting and arranging clothes.
- 23) 28<sup>th</sup> Sept, 2017. "Women Dignity" programme was organized by NSS unit. Around 80 volunteers were present for the event in Patanjali Auditorium.
- 24) 06<sup>th</sup> Oct, 2017. On the occasion of Gandhi Jayanti an event "Ahinsa and Mahatma Gandhi" was arranged by NSS unit. Around 85 volunteers were present.
- 25) 09<sup>th</sup> Oct, 2017. Rally on Vaccination was organized by TMC. 45 volunteers were present for rally.
- 26) 31<sup>st</sup> Oct, 2017. Blood Donation camp organized by KEM hospital at Thane station. 91 Blood bags were collected during blood donation camp. 20 volunteers were present and actively involved in donation camp.
- 27) 07<sup>th</sup> Nov, 2017. On the occasion of Students Day (in the memory of Bharatratna Dr. B.R.Ambedkar) an event was organized by College in Patanjali Auditorium. Around 20 volunteers present for this event.
- 28) 19<sup>th</sup> Nov, 2017. Police marathon was organized by Thane Police. Our 20 volunteers went to cheer up for police.
- 29) 1<sup>st</sup> Dec, 2017. On the occasion of World AIDS Day, Rally was organized by Civil Hospital. Around 50 volunteers were actively involved in rally.
- 30) 2<sup>nd</sup> Dec, 2017. On the occasion of World Oral Health Day, rally was arranged by Civil Hospital. Around 20 volunteers were present.
- 31) 07 Days Residential Camp arranged during 26<sup>th</sup> Dec 2017 to 01<sup>st</sup> Jan 2018.
- 32) On 12<sup>th</sup> January 2018, YUVA DAY was observed by a memorial lecture on Swami Vivekananda. Nearly 120 students were present for the lecture.
- 33) On 12<sup>th</sup> January 2018, YUVA DAY was observed at NKT College a function was arranged by the Thane Civil Hospital on YUVA and AIDS. Nearly 20 students were present for the event.
- 34) On 12<sup>th</sup> January 2018, VRUKSH VALLI program was arranged by TMC. Nearly 20 students were present for the event.

Co-ordinator  
**B. K. Mandlekar**

## RESEARCH COMMITTEE

Research activity was started with “Research Methodology” course for the staff members. The course was initiated by Vidya prasarak mandal and committee for the development of research culture among newly recruited teachers in the college. In the said course Dr Agarkar Sir taught to identify priority areas for research and to develop, promote and monitor policies and practices to stimulate research programmes, research performance, research quality, writing projects and papers in the agreed areas.

The committee monitors the progress of research work of Ph.D students at regular intervals. Circulars called for research proposals are displayed on the notice board regularly ,to encouraged guide the young staff and the students to attend the same. Circulars / invitations regarding seminars / conferences / workshops are forwarded to heads and concerned teachers.

Beside this committee celebrates National Science Day and publish e-journals; JBNB,includes publication by the faculty and students.

Minor and Major research projects has been screened and suggestion were given by committee for improvement. Total 11 minor projects were sent to University of Mumbai for research grant and one major sent to PUSA.

Two students from Microbiology and two students from biochemistry were participated in Avishkar Research Competitions organized by University of Mumbai under the guidance of A Dr. Anita Goswami-Giri from BioChemistry ,Dr. Kalpita Muley and Dr Jayshree Pawar from microbiology.

After project selected at zonal level in Avishkar, a grooming session was conducted by project guides. Among selected projects in district level, biochemistry project was selected for state level.

Dr.Anita Goswami-Giri acts as Jury member for other university as well as University of Mumbai, conducted grooming session for Interuniversity selected projects students at Amravati.

Dr. (Mrs.) Pejaver M.K was honored as guest for number of Conferences, Workshop and Seminar at National, International, State and Regional level .Dr Pariya from Zoology department and Dr. Anita Goswami-Giri from Chemistry department was worked as expert in zonal as well as in University research competitions.

Hands on training – UV Spectrophotometer was organized for Chemistry PG and UG project students. Committee also organized lecture on “**Patent Technology**” By **Dr.Rammana** to motivate and inculcate scientific temperament among UG. PG and teachers.

**Dr.Anita Goswami-Giri**

## Science Square and School Complex Committee Report

The various activities conducted by Science square Committee & College-School Complex Committee are as follows -

### ● National Science Day Celebration

Every year, National science day is celebrated as one of the main science festivals throughout India. On 28<sup>th</sup> February 2017 Tuesday, on behalf of Research Committee and Science Square Committee a '**National Science Day Celebration**' was arranged in VPM's B.N.Bandodkar College of Science in the memory of the discovery of the Raman Effect by Indian Physicist and Nobel Laureate Sir Chandrasekhara Venkata Raman.

On this day, **Prof. Dr. B.N. Jagtap** from IIT Mumbai was invited as Resource Person. **Mr. Kayal, Joint Secretary of Vidya Prasarak Mandal** had graced the occasion by his presence. The day was celebrated in college by **inauguration of current issue of e-journal of college i.e. JBNB** (Journal of B.N. Bandodkar) which was followed by a **poster presentation of Mini-Research Projects** and **talk of invitee**.

The programme of National Science Day began with offering garland to statue of our beloved Late Dr. V. N. Bedekar; Founder of VPM. It was followed by a session of poster presentation of Mini-Research Projects. It involved projects conducted under the Science Square Activity, Research Scholar Programme and DBT-STAR College Scheme. **There were 32 research projects presented by 24 teachers and 44 students in this event.** This year diversified presentations were appreciated by Chief Guest Prof. Dr. Jagtap, Mr. Kayal, Principal Dr. M.K. Pejaver and teaching staff. During the session, participants of poster presentation got an opportunity to share their ideas with the renowned scientist and teaching staff. Due the activities of research and science square committees research aptitude of student is enhanced. They developed their ability to learn and execute skills to deal with possible variations in the research project along with related applications. Students also excelled communication skills due to poster presentation. As the students are required to give a detailed report of project with review of literature, collection of materials, methods of analyses and interpretation of data, the writing skill is definitely advanced.

Later the formal function proceeded with welcomes address given by Principal Dr. Pejaver. She briefed about various activities conducted by the college to enhance research aptitude of the students. She summarized about Research Scholar Programme and DBT-Star College Scheme which are excelling the quality of research among students. After this, Dr. Anita Goswami-Giri (Co-coordinator, Research Committee and Editor of JBNB) expressed the theme of e-journal; JBNB (Journal of B.N.Bandodkar).

The main highlight of function was digital inauguration of e-JBNB which was inaugurated at the hands of Chief Guest Prof. Dr. Jagtap. The compiled booklet of Mini-Research Project



of academic year 2016-17 was also released by Dr. Jagtap and Mr. Kayal. Later Prof. Dr. Jagtap enlightened all audience with his precious thoughts. He began his talk by giving glimpses of contribution of Indian Physicist and Nobel Laureate Sir Chandrasekhara Venkata Raman. He gave an overview of history of Modern Science in India which took place in a dynamic way in last 129 years. He emphasized on glory of Indian Scientist in development of Science and Technology. He elaborated on Indian economy which is chiefly dependent on agriculture and industry sectors. Later he explained role of science and technology in generation of successful entrepreneurs. The most attractive feature of this talk was the concept of Pastuer's Quadrant. Through this concept he touched upon various aspects of research methodology which benefits the society. Sir also gave innovative ideas about the small scale research projects which are feasible to conduct in college laboratory. Majorly he elaborated on innovative use of chemicals in variety of fields such as fuels, textiles, electronics, etc. He gave thought to generate employment through science and technology. He also touched upon environmental issues that are directly affecting the society. The overall lecture was very informative and inspiring for students as well as teachers. He ended his talk by giving right message to the budding researchers, it was about 'Empowerment of India by Science and Technology through research in Basic Sciences'. It was an excellent platform for students to interact with Chief Guest and other staff of college.

**In addition to this, an exhibition of books related to Medicinal Plants and Contribution of Dr. C.V. Raman was arranged by Library.** Through this students got introduced with the good collection books which may enrich their knowledge.

Appreciation certificate were distributed for successfully completing the mini-research projects to students and guiding teachers.

Overall the science day activity enriched the aspiring student scientist and teachers.

### ● Research Scholar Programme

Research Scholar Programme has started in Academic year 2014-15. It is a Certificate Course related to Research & Overall Development. The course is of 18 months duration for which undergraduate students (S.Y. B.Sc.) are enrolled after a written test. This course helps in all round development of student's personality. It also enhances logical thinking involved in conduct of Scientific Research as well as it trains student in Event Management, Life skills, Soft skills & Computer skills.

**For the said course, an entrance test was scheduled on 18<sup>th</sup> March 2017 in which 32 students appeared. A batch of 23 students was enrolled for Year 2017-18.** Students were asked to select the research topics on their own and supposed to complete the project in stipulated time under the guidance of Professors.

First batch of Research Scholar Programme was successfully completed on 29<sup>th</sup> April 2017. **All 15 students were honoured and appreciated with a certificate of 'O' Grade by the hands of Principal Dr. M.K.Pejaver.** Total seven Research Projects were presented orally by effective visual aids. **Dr. Moitreyee Saha (Head, Dept of Botany) had examined**

## SANYUJA 2017-18

students on the basis of power point presentation of Research Project and performance given in various modules of course. She enriched all students with in depth knowledge about research methodology and presentation skills.

### ● Participation in Research Convention Avishkar 2017-18

Research Convention Avishkar is one of the reputed intercollegiate competitions organized by University of Mumbai. In order to have smooth conduct of Avishkar, a workshop of Teacher and Student Coordinators was organized on 14<sup>th</sup> November 2017 at Pragati College of Arts and Commerce, Dombivli. **Dr. Jayashree Pawar** (Coordinator, Dept of Biotechnology) attended the workshop as **Teacher Coordinator**. She was accompanied by **Ms. Saily Sud** and **Ms. Chaitali Dode** (S.Y.B.Sc. Biotechnology) who were appointed as **Student Coordinators**. District Round of Research Convention Avishkar 2017-18, took place at Birla College, Kalyan on 12<sup>th</sup> December 2017. This year from VPM's B.N.Bandodkar College, total four entries of UG students were sent for the same. Out of these two projects were shortlisted. They were as follows –

- 1<sup>st</sup> Rank - Research project was on “**Immobilization of PGPRs from Vetiver as Armed Green Forces**” **Spectroscopic analysis of Bioactive compound from *Lantana camara***” completed by **Rutuja Mhatre and Shivani Kasnurkar** under the guidance of **Ms. Purvi Shah**.
- 2<sup>nd</sup> Rank - Research project was on “**Synthesis of Natural Dye Nanoparticles and its Analysis**” completed by **Kanad Ghaisas and Siddhesh Thorat** under the guidance of **Dr. (Mrs.) Anita Goswami-Giri**.

Among these two projects, **2<sup>nd</sup> Rank Research Project** has been selected for **State level**.

**Dr. (Ms.) Urmila Kumavat**  
Coordinator, College-School Complex and Science Square Committee

## Sahitya Sahawas Committee Report

The Sahitya Sahawas had arranged a program on “Rainy Season”. It was conducted on Friday 15<sup>th</sup> September 2017. The participants in the program were students from junior and degree college. The poems and stories on Rainy Season were recited by the participants in languages in English, Hindi and Marathi.

The poems highlighted the importance of rainy season in human life. It also pointed the fact that rainy season is essential for agricultural activity. The poems brought to fact the emotional attachment the individuals have in their childhood with rainy season and playing on grounds in rainy season. The stories on rainy season also highlighted the fact that it is essential for sustenance of human beings and the sustenance of modern industries.

About one hundred and ninety students were present for the program. The teaching and non-teaching staff were also present for the program.

**Sudhir K. Bhosale**

Co-ordinator

Sahitya Sahawas (Bhasha Mandal)

## **Yoga Committee Report**

The Yoga committee, provides yoga training free of cost to the students and staff of this college (and also other institutes of Vidya Prasarak Mandal) in collaboration with Shri Nikam Guruji's Shri Ambika Yog Kutir, Thane.

Shri. Ramachandra Surveji, Secretary of Shri Ambika Yog Kutir, Thane. and the yoga teacher of Kutir extend excellent Co-operation to teach a 3 month certificate course. The training is given once in a week for 2 hours duration. The course is completed in 8 to 10 days training.

Yoga classes were arranged in batches on all six days of the week. All 480 (F.Y.J.C.) students participated in the training during the period August 2017 to October 2016. The certificates distribution program for the students who successfully completed the course was conducted on 8<sup>th</sup> Dec.2017. Shri. Ramachandra Surveji, Mr.Makarand H. Dixit and Mrs. Lalita M. Dixit guided the students during the program.

We celebrated International Yoga Day on 21<sup>st</sup> June 2017 in collaboration with Swami Vivekanand Kendra, Thane.

In the second term Yoga class was organized for F.Y.B.Sc. IT students on Monday, Tuesday and Wednesday of every week. Total 110 students have participated in the Yoga Certificate Course training.

The yoga package designed by Shri NikamGuruji is useful to prevent sickness and has ability even to cure different ailments of body and mind. I appeal the students and staff to learn and practice yoga for total health.

The Committee extend its sincere thanks to Shri Ambika Yog Kutir, VPM Management, Principal of our college, teaching and non-teaching staff for their excellent co-operation.

**Mrs. Shubhangi Pimpre**  
Coordinator  
Yoga Committee

**You can,t chose what life throws at you, but you can chose how you respond.**

# EMINENT ALUMNI INTERVIEW







## **EMINENT ALUMNI**



**Dr. Milind Vaidya**

- Consulting Neurosurgeon

प्रश्न : आपल्या बा. ना. बांदोडकर महाविद्यालयाची तुमची एक आठवण जाणून घ्यायला आवडेल ?

उत्तर : बा. ना. बांदोडकर कॉलेज हे असे कॉलेज आहे, जिथे मी स्वतः जास्त मजा केली. अशा बऱ्याचशा आठवणी आहेत. कारण इयत्ता ११ वी पर्यंत महाविद्यालय हे आमच्यासाठी नवीन होत. कारण ११ वी मॅट्रिक असल्या कारणाने ११ वी पर्यंत शालेय जीवन होत. १२ वी म्हणजे पहिले पाहिलेले कॉलेज, त्यामुळे १२ वी ला खरं कॉलेज काय हे समजलं. १२ वी ला मनमौजी सारखं फिरायचो, बंधन नाही कि कसली जबरदस्ती नाही आम्ही तर आठवड्याला ३ चित्रपट पाहण, असं आमचं महाविद्यालयाचं जीवन. जमल तर तासिकेला बसायचं पण प्रात्यक्षिकं कधीच चुकवल्या नाही. रेखा वैद्य मॅडम नेहमी सांगायच्या, तासाला पण बसायचं असत. माधुरी पेजावर मॅडम यांच्या तासिकेला आवर्जून बसायचो. मुजुमदार मॅडम आणि अनेक मॅडम आणि सर आमच्या भविष्याला आकार देण्याकरिता नेहमी तत्पर असायचे.

प्रश्न : महाविद्यालयामुळे आपल्या आयुष्याला कोणती कलाटणी मिळाली ?

उत्तर: कलाटणी संदर्भात बोलायचं झालं तर माझं ध्येय हे लहानपासूनच ठरलेलं होत. मी डॉक्टर होणार हे लहानपणापासूनच ठरलेलं होत. माझ्या आजीने माझा चुलत भाऊ डॉक्टर झाल्यापासूनच हे माझ्या मनावर बिंबवायला सुरुवात केली होती. महाविद्यालयामध्ये अनेक मॅडम तसेच सर हे मला विविध बाबतीत मार्गदर्शन करत होते.

प्रश्न : सामाजिक माध्यमाच्या मैत्रीत अडकलेल्या विद्यार्थ्यांसाठी आपण काय सांगाल ?

उत्तर: माझ्या महाविद्यालयीन जीवनात समाजामध्ये एवढी प्रगत नव्हती. त्यामुळे संपर्क हा प्रत्यक्ष व्हायचा. मला असं वाटत की महाविद्यालयामध्ये हे सगळं आवरत घेणं गरजेचे आहे. व्यक्ती – व्यक्ती मधील संपर्क कधीही फायद्याचेच ठरतात. ह्या सामाजिक माध्यमामुळे चार मित्र शारीरिक दृष्ट्या समूहामध्ये बसलेले असतात. पण मानसिक दृष्ट्या वेगळ्याच जीवनात वावरत असतात. आमच्या वेळेस प्रत्यक्ष संभाषण असायचे. प्राचार्य जर फेरफटका मारायला आले तर मात्र शांतता असायची. दुसऱ्या सगळ्या वेळेस आम्ही खूप मजा केली ज्या शिकण्यासारखं बराच काही असायचं समाज माध्यमात अडकलेले जीवन हे काल्पनिक आहे. मला असा

वाटत की आपण प्रत्यक्ष जीवनात जगायला शिकणं महत्वाचं आहे. त्यात मजा आहे आणि फायदा ही.

प्रश्न : आपल्या महाविद्यालयातील विद्यार्थ्यांन कडून आपणास कोणत्या महत्वाकांक्षा आहेत ?

उत्तर : मला असं वाटत कि विद्यार्थ्यांनी B.sc पुरता मर्यादित राहू नये जर गरज असेल तरच नोकरीचा विचार करावा नाहीतर पुढे M.sc तसेच P.hD चा विचार करणे गरजेचे आहे. आपलं महाविद्यालयाला NAAC आणि University Grand Commission (UGC) कडून दोन वेळा ग्रेड मिळाली आहे. तर मुलांनी त्या दृष्टीने जिद्द बाळगून वाटचाल केली पाहिजे. या मध्ये महाविद्यालयातील शिक्षकांनी सुद्धा विद्यार्थ्यांना मूलभूत विज्ञानाकडे आकर्षित करण्यासाठी प्रयत्न केला पाहिजे. मूलभूत विज्ञानाला बाहेरील देशामध्ये आपल्या देशापेक्षा जास्त संधी आहे. आपण आपल्या देशातील मूलभूत विज्ञानातील संधी कशा उंचावतात येतील या कडे लक्ष्य देणे गरजेचे आहे. झीरळप झीरळप हि जी संकल्पना आहे तिचा ओघ कसा कमी करता येईल या कडे लक्ष्य देणे गरजेचे आहे.

प्रश्न : आपल्या वेळेचे महाविद्यालय आणि आताचे महाविद्यालय यात काय फरक आहे ?

उत्तर : २००९/१० ला मी जेव्हा महाविद्यालयात आलो तेव्हा त्यात खूप प्रगती झाली होती. महाविद्यालयाचे Canteen सुंदर झाले होते. टपरी वजा दुकान आता सुंदर Canteen मध्ये रूपांतर झाले होते. शिक्षक आणि विद्यार्थ्यांची संख्या पण वाढली होती. महाविद्यालयाचे आदरातिथ्य खरोखरच चांगले होते. आताच्या प्राचार्या डॉ. माधुरी पेजावर मॅडमला तसेच महाविद्यालयाचे उपप्राचार्य व्यंकटरमन सर यांना भेटून खूप आनंद झाला. महाविद्यालयाच्या इमारतीचे नूतनीकरण पाहून समाधान वाटलं. तसेच आपल्या Shade ला आम्ही त्याकाळी Hollywood म्हणायचो ते आता Shade मध्ये रूपांतर झाले होते. ते माझ्यासाठी नवीन होतं आयुष्य एकदाच येतं आणि ते आनंदाने जगायचं असतं जीवन एपक्षे करायचं असतं.

प्रश्न : तुमच्या आयुष्यातलं तुमचं धैर्य आणि त्याला आधारस्तंभ देणाऱ्या शिक्षकांबद्दल आम्हाला जाणून घ्यायला आवडेल ?

उत्तर : मुळावकर मॅडम zoology शिकवायच्या Diagram काढण्यापासून प्रत्येक query ला solution देणाऱ्या शिक्षकांचे आभार. तसेच सगळे शिक्षक आम्हाला friendly होते. गणिताचे सर हे थोडे Strict होते.

प्रश्न : तुमचा आवडता नावडता विषय त्याबद्दल काही सांगा ?

उत्तर : आवडता म्हणायला गेलो तर अर्थात आधी पासूनचा डॉक्टर होण्याचा निश्चय त्यामुळे त्या विषयीच्या सगळ्या गोष्टींवर focus होता. मला तर Integration Derivative आवडायचं पण last benches असल्यामुळे शिक्षकांच्या नजरेत आम्ही मस्तीखोर असायचो पण ते नेहमी मजेदार वाटायचं. Classmate म्हणायला गेलो तर St .John's Baptist high school चे मित्र परिवार आणि गप्पांचा थाट रंगायचा नवीन बॅच असल्यामुळे प्रत्येक शिक्षक आमच्यावर नजर ठेवून असायचे.





NSS Unit



NCC Unit



Gymkhana Committee



Cultural Committee



Magazine Committee



