

### **1. Title of the Practice**

Inculcating Research aptitude in Students

### **2. Objectives of the Practice**

- 2.1 To inculcate the importance of research and development among the students.
- 2.2 To organize webinars to familiarize students about research and its requirements.
- 2.3 To empower the students with self-confidence, critical thinking and Scientific communication skills.
- 2.4 To strengthen and expand the problem-solving skills of students.
- 2.5 To encourage students to participate in various research meets, conventions, conferences, seminars and Avishkar.

### **3. The Context**

Research is a most powerful and effective instrument for the progress of mankind. Research forms the foundation of the education system. Students can utilize research to recognize and avail benefit from sharing of insight knowledge, innovative methods and new developments. Introduction of research methodology not only ignites the young mind for problem solving skill but also increases their employability. The main focus of educational research is based upon scientific investigation and provision of solutions to the problems in the realm of education. Educational research significantly contributes to the acquisition of knowledge about varied areas, other cultures, norms and values. It also enhances the understanding of concepts, theories, problem solving skills and regular classroom learning of students leading to their overall development. The practice's goal is to instill enthusiasm in students and faculty members for individual or joint research, resulting in a bright future for both.

### **4. The Practice**

An International Webinar “Research Convention: A Path Towards Success” was organized on 20<sup>th</sup> February 2021 with the aim to develop research inclination among students. Dr. Kalpana Agnihotri (Principal Scientist, Biosecurity Science Laboratory, Queensland Government, Australia) notified students about a variety of research opportunities available to them. Dr. P.U. Krishnaraj (Prof and Head, University of Agricultural Sciences, Dharwad, India) by his insightful session elaborated the various funding prospects for research in India. Dr. Avani Shah (Asst. Prof. Institute of Commerce, Nirma University, Gujarat) has provided students with information about Emerging Research Areas in Commerce and Finance.

An Orientation Programme on “Research arenas to Undergraduates” was organized on 9<sup>th</sup> March 2021 to create interest, atmosphere, awareness and opportunities in Research and Development among the students especially undergrads. During the program Dr. Ranjana Khade (Convenor Undergraduate Research Cell) introduced students to various aspects of research in science field. Current research going on in the field of history was very well explained by Dr. Rupali Mokashi. Prof. Bharat Khatri provided an insight of research in Commerce to the students. Prof. Madhumanti Dasgupta showed the path of research in the field of language.

Students were mentored by several teachers from different departments to participate and present their work in seminars, conferences, Avishkar. Throughout the mentoring sessions both students and mentor teachers worked enthusiastically.

## 5. Evidence of Success

- 5.1 500 participants throughout the world participated in the International webinar “Research Convention: A Path Towards Success”.
- 5.2 Four papers were presented at International Conference on Fundamental and Applied Sciences (ICFAS 2021) 24th March to 26th March, 2021 by 7 students. Aniket. S. Salunkhe, Sudha. S. Mahajan, Sakshi. M. Sawardekar (Guided by Dr, Ranjana Khade), Ashish Franklin and Juventa Lobo (T.Y.BSc Zoology)(Guided by Prof. Parimita Sharma), Shraddha Rai (M.Sc I Zoology)(Guided by Prof. Parimita Sharma and Prof. Kuldeep Mhatre) and Shraddha D Chandane (Guided by Dr, Ranjana Khade).
- 5.3 Nishad Sanjay Supugade (S. Y. BSc) and Dnyaneshwari Deepak More (S. Y. BSc) Presented paper titled “Work Distribution: Way To Happy Family” at "Anveshan 2021", Annual Intercollegiate student Research paper competition, Organized by Maniben Nanawati Women’s College 25th June 2021 (won the first prize (Rs.5000/-)
- 5.4 Kalpalata Shripada (MA II, English) published an article “Study of Individualism and Artistic Freedom Through Liberal Humanism in Ayn Rand’s The Fountainhead” in an International online Journal Langlit.
- 5.5 Narayani Sapkale (F.Y.B.Com) under the guidance of Prof. Seema Sindgikar presented a research paper “ Commerce + Good Management = commencement of stable market” in a National level online Student Research Paper Conference on “Recent Trends in Management and IT” . The paper was also published in the conference proceeding titled “Vijanan 2021”.
- 5.6 Total 25 project proposals were submitted at district level in 5 different categories with 3 different levels comprising 46 students [UG (24 students), PG (17 Students) and PPG (5 Students)].
- 5.7 Eight project proposals were selected for the final presentation round .
- 5.8 Ms Saili Chabuskwar (PG) and Ms Renu Jaisinghani (PPG) from Microbiology department were awarded with first rank (mentored by Dr. Rohini P Patil).
- 5.9 Ms. Arya Mane was awarded with second rank (guided by Dr. Geetha Menon).
- 5.10 College was awarded as Overall champion in Zone in Thane district including Navi Mumbai ( Zone III) by Mumbai University. (<https://drive.google.com/file/d/11I7if1ww99kaH69PRhiZdzhjeonX4xlp/view?usp=sharing>)
- 5.11 College was declared Overall Champion in Agriculture and Animal husbandry category by Mumbai University. ( <https://drive.google.com/file/d/1meLGj5p3zMNIZ-PemwsWQYURUARKMoit/view?usp=sharing>)
- 5.12 The college scored 4th Position at University Avishkar 20-21.

## 6. Problems Encountered and Resources Required

- 6.1. Pandemic restrictions posed limitation on the field-based research.
- 6.2. Owing to accessibility issues, faced problems while conducting coordinated research-based activities.
- 6.3. Lack of Hands-on training sessions.
- 6.4. Limitations for availability of laboratory facility and laboratory instruments, equipments caused hinderance for experiment based research.

**Resources Required**

- 5.1 Time and endeavors of the Undergraduate Research Cell and Research Development committee members.
- 5.2 Efforts and dedication of teachers from all the fields to encourage students for research.
- 5.3 Infrastructure facilities like laboratories, library. E resources etc.
- 5.4 Financial support for research.

### **1. Title of the Practice**

E- Waste awareness and collection drive .

### **2. Objectives of the Practice**

- 2.1** To create awareness about E-Waste and its impact on human health and environment.
- 2.2** To promote involvement of students , teaching and support staff and society for E- waste collection.
- 2.3** To minimize the quantity of E-waste which is disposed in landfills.
- 2.4** To safeguard the environment through proper and effective disposal of E- Waste.
- 2.5** To handover E- waste to government recognized E- Waste recycling agency.
- 2.6** To contribute towards sustainable environment.

### **3. The Context**

E-waste describes as any electronic item which has been discarded after its life has been completed. It includes computer parts, mobile phones, TVs, Fax machines, printers etc. Generally, these E-wastes are discarded, and they reach the landfills where owing to exposure to heat toxic chemicals and heavy metals leach into the soil and groundwater. These pollutants not only affect the plants growing in the nearby regions but also the microorganisms present in soil. Once the soil is polluted various other water bodies are also polluted leading to the effect even miles away from the source. On burning of E-waste toxins are liberated which cause air pollution. These pollutants not only put human life in danger but also plants and other animals are also affected. Thus, to reduce the E-waste pollution college has taken a step towards the proper disposal of E-Waste.

### **4. The Practice**

To create awareness among the students, teaching staff and support staff about E-waste concept and types , Physics department has organized an awareness campaign on 26<sup>th</sup> February 2020 under the able guidance of Associate Prof. Neelam Kapoor. Student volunteers were trained for the same. Student volunteers visited all the departments, classrooms, laboratories and offices within the college campus, classrooms in New Era School and trust office for creating the awareness regarding E-waste and its harmful impact on the environment owing to improper disposal. Pamphlets describing E-Waste and its hazards were also displayed throughout the campus to create awareness. Student volunteers also emphasized on the role of people for management of E-waste to reduce pollution. They also encouraged all teaching, support staff and students to participate in E-waste donation drive. The E-waste donation drive was organized from 26<sup>th</sup> February 2020 to 28<sup>th</sup> February 2020. In the month of September E-waste was again collected from college office. The collected E-waste was given to Ecoreco recycling Ltd (on 3<sup>rd</sup> March 2021. Ecoreco is a leading professional E-Waste Management Company which has benchmarked in recycling E-waste, innovative & environment friendly E-waste disposal practices.

### **5. Evidence of Success**

- 5.1.** Effective awareness regarding E-waste and its potential hazard on environment was created.

## Best Practice 2

- 5.2. Students, teaching and support staff were motivated to participate in huge numbers for the E-waste donation drive.
- 5.3. 152.55 Kg of E-waste was collected in two cycles of donation drive.
- 5.4. All the E-waste collected was handed over to Ecoreco for proper disposal and recycling.
- 5.5. College was able to contribute for safeguarding the environment by reducing the E-waste .
- 5.6. A small initiative towards sustainable development was taken by the College.

### 6. **Problems Encountered and Resources Required**

Awareness about E-waste and its harmful impact upon environment was the major problem faced during the campaign. Volunteers had to face various questions regarding harmful effect of E-waste. Many of them were a little bit susceptible about the data breach from their disposed devices. These problems were readily handled by the volunteers along with the entire team of teaching staff of Physics department.

### 7. **Resources Required**

- 7.1. Time and efforts of the teaching and support staff of Physics Department and volunteers to organize the awareness campaign and donation drive.
- 7.2. Materials for pamphlet preparation.
- 7.3. A collection center for collection of E-waste.
- 7.4. A storage room for proper storage of collected E-waste.