

BEST PRACTICE: 1

Title: Student Research Project (SRP).

Goal: To inculcate and develop research culture among the students.

Context: Every student has a potential for creative thinking. Therefore, the institution decided to provide them a platform to present their research ideas in the form of 'Student Research Projects. Students are also encouraged to undertake Research Project which can be supported, funded and incubated by different organization.

Practice: The college organizes different contact sessions where students are invited to come up with their ideas and discuss it with their subject teacher and all the members of the Innovation and Incubation Cell (IIC). The teacher concerned helps the students in developing the idea and giving it the form of a project proposal. The project is then forwarded to the IQAC for consideration. The IQAC Co-ordinator forwards the proposal to the Head of the Institution for sanction of financial assistance. The selected student is assigned a mentor teacher who supervises the entire project work that includes carrying out research work in the laboratory as well as in the field. The role of the teacher mentor is to guide the students as how to do document the Research Project. The students are helped to record the findings as per the standard practice. The college provides for the unlimited access to College/Departmental library and they are also guided to convert this into a proper research paper. Students were provided college and departmental library and computer facility for doing online referencing and typing etc.

Students are also encouraged to present their research ideas on different platform, such as NAVIN, which is a collaborative endeavour of Raman Science Center, Vidarbha Industries Association, Nagpur (VIA) and Vigyan Bharti.

Evidences of success:

The Following Students Research Project sanction by the College in the session 2018-19 and 2019-20

- 1) **Title of the Project:** Histopathological Study of Freshwater African Catfish *Clarias gariepinus* exposed to hexaconazole.
Name of the Mentor: Mr. Jitendra Kirsan
Name of the Student: Ms. Vrushali Dhande and Priyanka Sebre (B. Sc. 2 Year)
Year: 2019-20
Sanction Amount: (SRP) 3,000/-
- 2) **Title of the Project:** Impact of Eutrophication Status in Miskin Water Tank Ecosystem of Bhandara City (M.S).
Name of the Mentor: Dr. Padmavathi S. Rao
Name of the Student: Ms. Rashmi S. Khawas and Ms. Shivanjali S. Burane (B. Sc. 3 Year)
Year: 2018-19
Sanction Amount: (SRP) 3,000/-

- 3) Title of the Project:** A study of physiochemical parameter of Khambtalao Bhandara in relation to Eutrophication status.
Name of the Mentor: Dr. Veena Mahajan
Name of the Student: Ms. Komal A. Jangale and Mr. Manojkumar D. Zalke (B. Sc. 3 Year)
Year: 2018-19
Sanction Amount: (SRP) 3,000/-
- 4) Title of the Project:** An assessment of plankton diversity and abundance in miskin lake with reference to pollution of Bhandara city.
Name of the Mentor: Dr. Aparna Yadav
Name of the Student: Mr. Chandan Sakharkar (M. Sc. 1 Year) and Mr. Vrushabh Gajbhiye (B. Sc. 1 Year)
Year: 2018-19
Sanction Amount: (SRP) 3,000/-

The following Students Research Project selected for Incubation under NAVIN.

- 1) Title of the Project:** A Survey of Biopesticide Potential of Natural Flora for identification Of Novel Biomolecules for Commercial Biopesticides Formulation.
Name of the Mentor: Dr. Padmavathi Rao
Name of the Student: Ms. Rashmi S. Khawas (B. Sc. 3 Year)
Year: 2019-20
Platform: NAVIN
- 2) Title of the Project:** 4- Aminoantipyrine Based Biologically Active Schiff Bases Ligands and Their Transition Metal Complexes.
Name of the Mentor: Dr. Samina Tadavi
Name of the Student: Ms. Ruksar Farukh Sheikh (B. Sc. 3 Year)
Year: 2019-20
Platform: NAVIN
- 3) Title of the Project:** Synthesis, Characterization and Biological Activities Based on Triazine - Salicyldamine Schiff Bases and Their Transition Metal Complexes.
Name of the Mentor: Dr. Sunil Zanje
Name of the Student: Ms. Kalyani P. Naxane (B. Sc. 3 Year)
Year: 2019-20
Platform: NAVIN
- 4) Title of the Project:** Investigation of Anti-cancerous activity of leaves of papaya, *Carica papaya* in the treatment of cancer.
Name of the Mentor: Mr. Jitendra Kirsan
Name of the Student: Mr. Mukesh Maske (M. Sc. 1 Year)
Year: 2019-20
Platform: NAVIN
- 5) Title of the Project:** Anti-diabetic activity of seeds of jamum, *Syzygium cumini* in the treatment of diabetes.

Name of the Mentor: Mr. Jitendra Kirsan

Name of the Student: Mr. Ashwinkumar Lonare (M. Sc. 1 Year)

Year: 2019-20

Platform: NAVIN

- 6) **Title of the Project:** Screening of Natural Flora of Bhandara District for identification of potential new generation of natural antibiotics for use in health industry.

Name of the Mentor: Dr. Aparna Yadav

Name of the Student: Mr. Chandan Sakharkar (M. Sc. 1 Year)

Year: 2018-19

Platform: NAVIN

- 7) **Title of the Project:** Eco-Friendly Control/Measures of Industrial Pollution.

Name of the Mentor: Dr. S. P. Qureshi

Name of the Student: Mr. Vrushabh Gajbhiye (B. Sc. 1 Year)

Year: 2018-19

Platform: NAVIN

The Student Research Project resulted in Two Papers being published in International Peer Reviewed Journal.

- 1) **Title of the Paper:** Impact of Eutrophication Status in Miskin Lake Ecosystem of Bhandara Tank Ecosystem of Bhandara City, (M.S) India- A Case Study.

Name of the Author: Ms. Rashmi S. Khawas, Ms. Shivanjali S. Burane and Dr. Padmavathi Rao.

Journal: International Journal of Research and Analytical Reviews (IJRAR), June 2019, Voume 6, Issue 2, June 2019, (E-ISSN 2348-1269, P-ISSN 2349-5138), Pg No. 268-270.

Year: 2019-20

- 2) **Title of the Paper:** A Rewiew on Herbal Cosmetics in New Era of Cosmaceuticals.

Name of the Author: Dr. Sayeda Parveen Qureshi, Dr. Aparna Yadav and Mr. Chandan Sakharkar

Journal: International Research Journal of Natural & Applied Sciences, June 2019, Volume 6, Issue 6, ISSN: (2349-4077), Pg No. 137-142.

Year: 2019-20

Problems Encountered and Resources Required: Many of the students come from financially and socially challenged background it takes a lot of hand holding initially to develop the ideas into Projects. Sometimes the students (Who come from nearby villages) have to travel to Nagpur and other places for research work. In such cases the college would fund the travel expenses of the students. The teachers also arrange two wheeler for the local field work. Students selected for the NAVIN Project are provided access to laboratory facility and chemicals by the Raman Science center, Nagpur.

Best Practice: 2

Title: Multiple-Choice Question (MCQ) based Online Test Examination.

Goal: To prepare the students for MCQ based mode of examination.

Context: Covid-19 pandemic has impacted not only the entire country but also the people around the world. Educational institutions remained closed during the lockdown. Around April it became clear that life would be very different here on. Exams which would normally be held in months of March/April/May seemed uncertain as the Government kept on extending the lockdown period in order to limit the spread of Corona Virus. There were also talk on academic circles that the University may conduct online examination of the students, atleast the final year students. Keeping this in mind, on the initiative of the Internal Quality Assurance Cell (IQAC), the Principal of the college held an online meeting and it was decided to conduct Practice Test/Test Examination for the students.

Practice: All the Teachers were informed to prepare a Test of 25 MCQs. The test was prepared in such a manner that they covered all the prescribed units. The MCQs were moderated, where possible by senior teachers or HODs. The Departments were instructed to prepare the schedule and notify the students about the date of the Online Examination. All the Departments prepared their scheduled of Test Examination in such a manner that there were no clash and shared it on the Class Whatsapp Group. The students were required to answer 25 MCQs (with different difficulty levels) in one hour. The links of the Google Form Test Exam was shared in the Whatsapp Group of students on the scheduled day, the marks obtained by the students were released immediately.

Evidence of Success: Informal feedback received from the students suggested that the Online Test Examination helped them to appear in the University Online Examination with great confidence. The University also conducted its examination Online in the MCQs pattern in view of the Corona Pandemic.

Problems Encountered and Resources Required: Some of the teachers were not a technology savy and initially found it difficult to prepare MCQs on the Google Form. Such teachers were helped by Departmental colleague and other teachers. Around 30% of the students informed that they did not have Whatsapp connection. Such students were suggested use the Whatsapp of their other family members or immediate neighbours. There were issues regarding connectivity with some students. Such students were given additional time to complete their Exam.