

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

Sr. No	Title of the Project	Name of the Mentor	Name of the Student	Year	Sanction Amount
1	A Histopathological Study of Freshwater African Catfish <i>Clarias gariepinus</i> Exposed to Hexaconazole	Mr. Jitendra Kirsan	Ms. Vrushali Dhande (B.Sc.2 Year)	2019-20	(SRP) 3,000/-

2	Impact of Eutrophication Status in Miskin Water Tank Ecosystem of Bhandara City (M.S)	Dr. Padmavathi S. Rao	Ms. Rashmi S. Khawas (B.Sc.3 Year) and Ms. Shivanjali S. Burane (B.Sc.3 Year)	2018-19	(SRP) 3,000/-
3	A study of physiochemical parameter of Khambtalao Bhandara in relation to Eutrophication status	Dr. Veena Mahajan	Ms. Komal A. Jangale (B.Sc.3 Year) and Mr. Manojkumar D. Zalke (B.Sc.3 Year)	2018-19	(SRP) 3,000/-
4	An assessment of plankton diversity and abundance in miskin lake with reference to pollution of Bhandara city	Dr. Aparna Yadav	Mr. Chandan Sakharkar (M. Sc. 1 Year) and Mr. Vrushabh Gajbhiye (B. Sc. 1 Year)	2018-19	(SRP) 3,000/-

The following Students Research Project selected for Incubation under NAVIN.

Sr. No	Title of the Project	Name of the Mentor	Name of the Student	Year	Platform
1	A Survey of Biopesticide Potential of Natural Flora for identification Of Novel Biomolecules For Commercial Biopesticides Formulation.	Dr. Padmavathi Rao	Ms. Rashmi S. Khawas (B. Sc. 3 Year)	2019-20	NAVIN
2	4-Aminoantipyrine Based	Dr. Samina Tadavi	Ms. Ruksar Farukh Sheikh (B. Sc. 3 Year)	2019-20	NAVIN

	Biologically Active Schiff Bases Ligands And Their Transition Metal Complexes.				
3	Synthesis, Characterization and Biological Activities Based On Triazine-Salicyldamine Schiff Bases And Their Transition Metal Complexes.	Dr. Sunil Zanje	Ms. Kalyani P. Naxane (B. Sc. 3 Year)	2019-20	NAVIN
4	Investigation of Anti-cancerous activity of leaves of papaya, carica papya in the treatment of cancer	Mr. Jitendr Kirsan	Mr. Mukesh Maske (M. Sc. 1 Year)	2019-20	NAVIN
5	Anti-diabetic activity of seeds of jamum, Syzgium cumini in the treatment of diabetes.	Mr. Jitendr Kirsan	Ashwinkumar Lonare (M. Sc. 1 Year)	2019-20	NAVIN
6	Screening of Natural Flora of Bhandara District for identification of potencial new generation of natural antibiotics for use in health industry.	Dr. Aparna Yadav	Mr. Chandan Sakharkar (M. Sc. 1 Year)	2018-19	NAVIN
7	Eco-Friendly Control/Measure s Of Industrial Pollution.	Dr. S. P. Qureshi	Mr. Vrushabh Gajbhiye (B. Sc. 1 Year)	2018-19	NAVIN

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

Sr. No	Title of the Paper	Name of the Author	Journal	Year
1	Impact Of Eutrophication Status in Miskin Lake Ecosystem Of Bhandara Tank Ecosystem of Bhandara City (M.S).	Ms. Rashmi S. Khawas, Ms. Shivanjali S. Burane and Dr. Padmavathi Rao	International Journal (IJRAR), June 2019, Voume 6, Issue 2, June 2019, (E-ISSN 2348-1269, P-ISSN 2349-5138), Pg No268-270.	2019-20
2	A Rewiew On Herbal Cosmetics In New Era of Cosmaceuticals.	Dr. Sayeda Parveen Qureshi, Dr. Aparna Yadav and Mr. Chandan Sakharkar	International Research Journal Of Natural & Applied Sciences, June 2019, Volume 6, Issue 6, ISSN: (2349-4077), Pg No. 137-142 .	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 their 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 Whtasapp 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.