# 1. Student Research Project Scheme

**Title of the Practice:** Student Research Project Scheme

- Goal:
  - To expose maximum number of students to research as a prospective career choice.
  - To develop their logical reasoning ability under the able guidance of teachers.
  - To inculcate research culture among students.
  - To provide an opportunity for expression of academic talent & Hands on Training to the students.
  - To increase the number of innovative ideas that will stand in the Avishkar Competition.

#### The Context:

Shikshan Prasarak Sanstha has always been instrumental in elevating students' exposure to various career boosting activities in terms of arranging guest lectures of eminent scientists from some of the best laboratories across India and so on. In accord with this tradition, Dr. Sanjay Malpani, the enthusiastic Chairman of Shikshan Prasarak Sanstha put forth a novel idea of faculty-wise competition of research projects of students. The scheme was named as "Principal M.V. Kaundinya Student Research Project Scheme" in the memory of Founder Principal of the college. After exhaustive discussions with the staff, Dr. Sanjay Malpani framed the outline of the student research project scheme for both undergraduate and postgraduate levels in the form of competition and evaluation of these projects at multiple levels. The basic idea of the scheme is to expose maximum number of students to research as a prospective career choice and develop their logical reasoning ability under the able guidance of teachers. Every teacher is supposed to take care of and guide a defined number of research projects every year. Usually in the month of December-January, the first departmental level screening round of the projects is scheduled to select the best projects from each department. These selected projects would be evaluated by external agencies to identify the facultywise best projects from both undergraduate and post-graduate categories. The faculty-wise best projects would be awarded with Rs. 3000/- and gold medal (first ranker), Rs. 2000/- and silver medal (second ranker), Rs. 1000/- and bronze medal (third ranker) and two consolation prizes. The efforts of all the participating students are appreciated with certificates. Department-wise contribution of the teachers is also taken into the consideration and the maximally participating departments are awarded with cash prizes and mementos.

#### The Practice

A notice is conveyed to all the students for participation in SRS; along with a detailed schedule at the beginning of the year. A departmental screening round is arranged to scrutinize the projects at the department level. The shortlisted students are called for second last presentations.

The students that qualify through the second last round have to present the projects in final round. As per the pre-defined criterion and number of prizes, winners are declared after the final round. Separate prizes are given for UG and PG category. Usually, 1<sup>st</sup> three students at faculty level, are given a cash prize, medal, a book and certificate. Others, at departmental level, are awarded with an appreciation certificate.

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students are given participation certificates. The guide-teachers are felicitated with an appreciation certificate.

### **Evidence of Success**

The college research committee co-ordinators Dr. D. M. Gujarathi (Commerce faculty), Dr. U.S. Jagdale (Arts and Mental Moral faculties), Dr. S. S. Borgave (Science faculty) and the members of the committee shouldered the responsibility of successful implementation of the scheme (2012 to 2014) under the leadership of Principal Dr. K. K. Deshmukh. Then this responsibility was further carried by next college research committee co-ordinators Dr. A. D. Divekar (Commerce faculty), Dr. R. S. Kawale (Arts and Mental Moral faculties), Dr. P. P. Bardapurkar (Science faculty) (2015 to 2017). From the year 2018-19 this responsibility is now carried by next college research committee co-ordinators Dr. V. A. Mendhkar (Commerce faculty), Dr. A. S. Limbekar (Arts and Mental Moral faculties), Mr. S. R. Shrimandilkar (Science faculty) and the members of the committee shouldered the responsibility of successful implementation of the scheme under the leadership of Principal Dr. K. K. Deshmukh. This scheme facilitated hands-on training of a large number of students and gave them the glimpses of formulating a precise research question and resolving the query with the use of appropriate methodology. In all, 287 projects from all the four faculties were evaluated in the year 2012-13, 195 projects in the year 2013-14, 175 projects in the year 2014-15, 245 projects in the year 2015-16, 250 projects in the year 2016-17, 380 projects in the year 2017-18, 405 projects in the year 2018-19, 478 projects in the year 2019-20, 420 projects in the year 2020-21, 659 projects in the year 2021-22, 573 projects in the year 2022-23 and 597 projects in the year 2023-24.

Details of Projects under Student Research Project Scheme								
Year	No. of Research Projects Faculty wise under 'Student Research Project Scheme'							
	Arts	Mental, Moral & Social Science	Commerce	Science	Total			
2012-13(UG & PG)	70	22	45	150	287			
2013-14(UG & PG)	35	30	20	110	195			
2014-15(UG & PG)	36	14	25	100	175			
2015-16(UG & PG)	52	15	43	135	245			
2016-17(UG & PG)	39	12	35	123+41=164	250			
2017-18(UG & PG)	38	59	55	157+71=228	380			
2018-19 (UG & PG)	53	42	53	244+13=257	405			
2019-20 (UG & PG)	68	57	36	287	478			
2020-21(UG & PG)	41	50	39	310+30=340	420			
2021-22(UG & PG)	88	92	96	352+31=383	659			
2022-23(UG & PG)	83	100	75	296+19=315	573			
2023-24 (UG & PG)	86	100	96	294+21 = 315	597			
Total	689	593	618	2764	4664			

## 1. Increased participation in Avishkar Competition:

Due to the constant encouragement through Student Research Project Scheme, the number of entries for State Level Inter-University Research Competition namely **Avishkar** has been increased. The college made record by winning Prizes at State Level also.

Details of Projects under Avishkar Competition								
Year	Number of projects under the 'Avishkar'							
	College Level	Zonal Level	University Level	State Level	Winner at State Level			
2010-11	14	12	10	2	Nil			
2011-12	19	15	4	1	Nil			
2012-13	17	17	6	2	1			
2013-14	31	18	8	1	Nil			
2014-15	25	25	9	2	1			
2015-16	36	27	12	Nil	Nil			
2016-17	22	22	5	2	Nil			
2017-18	55	27	8	1	Nil			
2018-19	46	24	15	3	Nil			
2020-21	COVID – Not organized due to COVID Pandemic							
2021-22								
2022-23	60	26	11	02	Nil			
2023-24	52	26	09	09	Nil			

## 2. Student Research Projects for supporting institutional management:

The outcomes of student research projects have contributed to of institutional management. The projects have contributed to following support facilities for management:

- i. Survey Report on data with regards to rainfall, roof area of buildings in the campus and scope for rain water harvesting (Student Research Project by Department of Geography)
- ii. Survey report for Plant diversity of the campus for Green Audit (Student Research Projects by Department of Botany)
- iii. Applications based on .NET (Student Research Projects by Department of Computer Science) for
  - a) Auditorium availability and booking Management System
  - b) Teacher Profile Management System
  - c) Result Analysis
  - d) Leave Management System

## 3. Research Output:

Due to the participation of students in student research project scheme they get the prior knowledge of the research concept which helps them during their further education. It gives them basic idea for how to present their work with the help of PowerPoint presentation and also increase their stage daring boosting their self-confidence. More importantly they get additional advantage while facing the interviews for getting jobs.

Also, some of the projects have been published as Research Articles and some were presented in National Conference as a Research Paper under the guidance of concerned Guide Teacher.

### **Problems Encountered**

- Championing students and Staff.
- Conduct of scheme along with regular teaching schedule.

• Overlap with the university examination schedule.

# **Resources Required-**

- Team of Guide Teachers
- Well-equipped Laboratories along with chemicals and glassware
- ICT facility at Library
- Auditorium
- Prizes, Award & Certificate
- Judges

# **Contact person for further details:**

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