

Dnyanopasak Shikshan Mandal's
COLLEGE OF ARTS, COMMERCE AND SCIENCE , PARBHANI

**UGC Scheme to Strengthen Basic Scientific Research
(BSR)**

University Grants Commission (UGC) provides grants under the BSR scheme for developing infrastructure of science departments of “College with Potential for Excellence”. Dnyanopasak Shikshan Mandal’s College of Arts, Commerce & Science, being awarded the status of “College with Potential for Excellence”, was allocated by UGC, under BSR scheme, a grant of Rs. 132 lakhs under two phases (Phase I 60 lakhs and Phase II 72 lakhs) for the use of Science Departments viz.

1. Chemistry,
2. Microbiology
3. Physics
4. Electronics
5. Mathematics
6. Computer Science
7. Statistics
8. Botany
9. Zoology
10. Fishery Science
11. Biotechnology
12. Geology

The first phase of installment of Rs. 60 lakhs (@ 5 lakhs for each Science Department) was released during the year 2007-08 while the second phase of installment of Rs. 72 lakhs (@ 6 lakhs for each Science Department) was released during the year 2009-10. The College used this grant as specified in the scheme for the purpose of improving power supply, water supply, safety equipments, laboratory working table and upgrading of laboratory, thereby, creating conducive ambience in the science laboratories for undertaking research. The College made the best use of these grants to upgrade the science laboratories thus providing better facilities to the students.

To overcome erratic power supply of electricity, a 50 KW electricity generator is installed in the college for the use of the above named science laboratories. For the purpose of safety, old gas pipelines are replaced and the fire extinguishers are also placed in the laboratories. Working tables in the laboratories are renovated. All science laboratories are updated with latest equipment. Improvement of infrastructural facilities under BSR Grants has enabled us to appraise the students with the latest developments in the field of scientific research. Thus, we believe, encourage the students to pursue research in their respective disciplines. We have made a small beginning by sprucing up the infrastructural facilities to pursue research in our college and we hope this would pave the way for undertaking scientific research in a big way in the near future.

FACILITIES DEVELOPED

BSR Phase I (2007-08)		BSR Phase II (2008-09)	
Sr. No.	Items /materials purchased	Sr. No.	Items /materials purchased
A. Strengthening of Infrastructure - Power Supply			
1	Generator system 50kw	1	Light fitting material
2	Light fitting material	2	Inverter and Batteries
3	Inverter and Batteries	3	- -
B. Strengthening of Infrastructure - Water Supply			
1	Plumbing material	1	Plumbing material
2	Lab Cock	2	Lab Cock
3	Water purifier and cooler	3	Water purifier and cooler
C. Strengthening of Infrastructure - Safety Equipments			
1	Fire Extinguisher	1	Fire Extinguisher
2	Book Case	2	Book Case
3	Gas Connections	3	Gas Connections
4	Safety sliding windows	4	Safety sliding windows
D. Strengthening of Infrastructure - Laboratory Working Table			
1	Computer tables & Chairs	1	Computer tables & Chairs
2	Table top work material	2	Table top work material
3	Table work in plywood	3	Table work in plywood
4	Computer lab Table Al & Ply. work	4	Lab Table Al & Ply. work

E. Strengthening of Infrastructure - Upgrading of Laboratory			
1	50 Computer System + UPS	1	08 Sony LCD Projector
2	Software Window XP, MS Office Antivirus 2008 for 3 yrs	2	02 Godrej Refrigerator
3	Air Conditioner	3	Air Conditioner
4	FTIR Spectrophotometer	4	Golden Software surfer
5	FTIR accessories	5	4 Computer system
6	UV Spectrophotometer	6	Canon laser printer
7	Remi make stirrer	7	2 Canon scanner
8	6 Heating mantle 250 ml	8	Multi-parameter tester
9	6 Heating mantle 500 ml	9	Installation of Antivirus in computers
10	High temp furnace 1200 ^o C	10	White board and markers
11	Vacuum pump	11	Garmin GPS System
12	Thermo make Spectronics 20 D	12	Systronic Research gr. Spectrophotometer
13	Top pan Balance Schemadzu	13	UV-VIS Spectrophotometer
14	Laminar Air	14	Book Rack
15	Labomade trinocular Microscope	15	MATLAB Math software
16	Trinocular Microscope with camera	16	Equipments for Physics dept.
17	Spectro- photometer	17	Geological Torsion balance
18	2 Water bath	18	DT Oscilloscope
19	Hot air oven	19	Respirable dust sampler
20	2 Digital temp. indicator	20	Stool, chairs and racks
21	BOD Incubator with stabiliser	21	Resistance box
22	Autoclave 350mm	22	Galvanometer
23	Digital colorimeter	23	UV-Transilluminator, etc
24	pH meter	24	Remi High speed Centrifuge
25	PCR equipment for Biotech.	25	Biophotometer
26	Electrophoresis	26	Proton magnetometer
27	Cooling Centrifuge	27	Elico UV-Spectrophotometer
28	Angle heat rotor	28	Blue star AC
29	Rotary shaker	29	Water purifiers
30	Bio Era teaching kits	30	Steelmate Rotary shaker
31	Spectro- photometer	31	UV-VIS Spectrophotometer
32	10 student microscope	32	Section Grinding machine
33	pH meter	33	Equipments for Electronics
34	Incubator	34	Chemicals and glassware
35	Autoclave	35	Olympus Phase contrast Microscope
36	Hot air oven	36	Computer lab AI & Ply. Work
37	Research centrifuge	37	Tile fitting in labs.
38	Angle head for centrifuge	38	Colouring / paint in Labs

39	Voltage stabiliser	39	Seismic timer
40	Physics Equipments & components	40	Galvanometer spot BG
41	Fluoride meter	41	Transistors
42	Chloride meter	42	Magnetometer
43	Minerals and rocks	43	Photo cell
44	Microscopes Petrological	44	Power supply for Physics
45	Sediment sampler	45	White boards in lab
46	Phoenix Kit	46	2 Signal generator (APLAB)
47	Electronics Logic Gates equipment	47	1 Temp. Controlled soldering gun
48	Oscilloscope	48	2 Digital basic gates trainer
49	Function generator	49	AM modulation, demod. kit (ET-96) Omega
50	Digital Camera	50	Display board on different Capacitor CDB- 703
51	Optic fibre, Multimeter, Power supply, kits etc	51	Display board on different Transistors CDB- 707
52	DYNA85,51 Cable connectors etc	52	Projects Allotted to students

APPRAISAL OF INFRASTRUCTURAL DEVELOPMENT MADE OUT OF U.G.C. BSR GRANTS

We are very grateful to university grants commission for providing financial assistance to our institution under Basic Scientific Research (BSR) scheme. Every penny of the available grant has been very effectively utilized for the cause of academic advancement of the faculty and the students.

Some of the major equipment purchased out of the BSR grant includes FTIR Spectrophotometer, PCR (Cell Counter), UV-Spectrophotometer, Biophotometer, BOD Incubator, Rota evaporator, PH-meter, Research and Students Microscopes etc. All these instruments have enhanced the precision in experimentation and have facilitated better transfer of practical skill among the students. Students are effectively learning the automation and other advancements in science and technology. Purchase of spectrophotometer has enabled the students to work in small groups for performing experiments in Chemistry, Microbiology, Biotechnology viz. colorimetric

determination of serum glucose, serum cholesterol, serum urea and serum uric acid as included in the syllabi of undergraduate classes in medical stream. Similarly, the electronic balance and ph meter are of multiple uses in experimental biology and chemistry.

Apart from the purchase of aforementioned equipment, the BSR grant has also been utilized in renovation of laboratories which have added the provision of adequate space for the installation of equipment and better workspace for students. Additional storage racks have been created beneath the shelves of the labs for procuring class-work materials. Air Conditioner has been installed in labs for facilitating the appropriate functioning of equipments and computers (purchased from the grant).

In a nutshell, it may be stated that the BSR grant has been very useful in the upgradation of infrastructure of the departments and has very effectively improved the teaching-learning activities for academic upliftment of the students and the faculty.

ACHIEVEMENTS MADE OUT OF U.G.C. BSR GRANTS

1. Ph.D. candidates registered : 205
2. Ph. D. degree awarded : 56
3. Thesis submitted : 15
4. Publications: As below-
 - a) Papers published : National 289, International 119 = 408
 - b) Books written : 39
5. Research Projects undertaken:
 - a) Major Research Projects : 06
 - b) Minor Research Projects : 19

Principal
