

CRITERION VII INNOVATION AND BEST PRACTICES

Vikram University has been basking in the majestic glory of the illustrious past of the ancient city of Ujjain. Ujjain holds the rare privilege of being a 5000 years old holy seat of learning of Lord Krishna. The brilliance of wisdom has been the hallmark in the legacy of the history of the city epitomized by the 'Navaratna' of the Great King Vikramaditya. The University embodies the virtues of solemnness, objectivity, goodness, integrity, truthfulness and honesty that characterized the nature of King Vikramaditya after whose name the University got its name.

Vikram University gives highest value to the ethical practices and standards. These standards are the parameters set for all kinds of innovations and best practices.

7.1. Environment Consciousness

Environment plays a pivotal role in quality of human life. Vikram University takes pledge to raise an environment conscious community of educated fraternity. The green policies of the University are clearly documented in 'Environmental policy' and are being implemented.

7.1.1 Does the University conduct Green Audit Policy?

- Vikram University premises are located in the rich belt of Malwa region known for abundance of natural resources and water reservoirs. Surrounded by rich greenery and plantation the academic campuses of the university captures the attention of all those who visit the campus.
 - The great festival known as 'Mahakumbh' or 'Simhastha' is celebrated on the bank of the holy river of Kshipra and in the vicinity of the temple of Lord Mahakaleshwara after every 12 years. This festival inculcates the natural spirit of understanding the significance of nature. Therefore students and staff of the university have a eco-friendly tendency of safeguarding the greenery within the campuses and also around the campus.
 - Every building within the campus has its own small garden maintained by the staff members of the respective academic building. As a result of such magnificent rich pastures of greenery our national bird peacock is seen in abundance to the passer by.
 - NSS and NCC wings of the University have been instrumental in promoting environmental consciousness by organizing programmes of tree plantation on numerous occasions throughout the year. Visits of dignitaries and distinguished personalities in the campus are accompanied by a plantation symbolizing the eco-friendly nature of the members of the university.
- *The University is planning to initiate 'Green Audit' of the campus soon.*

7.1.1 What are the initiatives taken by the University to make the campus eco-friendly?

a. Energy Conservation:

- In the present scenario of the global energy crisis is the need of the hour to seek support from the natural sources of energy and the Sun is the most powerful source for generating Solar Energy. The University is going to set up **Solar Energy Panels** in the Boys' and Gils' hostels very soon. Gradually the panels would be set up across the University campus. Setting up these panels would not only solve the energy crisis but would also save environment and money.
 - Nature has blessed human beings with plenty of wind which is also an immense source of energy. The University is also trying to start **Wind Energy System** at the University Library very soon. This would definitely pave the path for more such systems to be installed hence conserve energy to a very great extent.
- b. *Use of renewable energy***
- Promotion of solar and wind energies is included for implementation in a phased manner. Planning is underway to use solar energy power in the premises to reduce power consumption and use other alternative sources of generating power which would help in overcoming the power crisis.
 - The University has set up '**Vermicompost**' Centre within the campus and plans are underway to use human waste for generation of biogas.
- c. *Water harvesting***
- Rain water harvesting has been done in every building in the University. Terrace water harvesting systems are installed in the existing buildings. It is also made mandatory in all the new and proposed buildings in the University to set up rain water harvesting system.
 - Rain Water Harvesting would help in recharging the earth and increase the water level.
- d. *Check dam construction***
- We established "Vikram Teertha Sarovar" for the collection of Rain water and recharging the tube wells of the campus. The building of "Vikram Teertha Sarovar" is a mile stone not only in the history of the university but it is also helping to raise the water level in and around the university campus and is of an immense help to the society at large.
- e. *Efforts for carbon neutrality:***
- Attempts are to be made for carbon neutrality. Vikram university campuses are surrounded by rich green and vegetative cover. Univesity has no polluting industry or plants in its nearby locations. Hence the university environs are not polluted by any kind of pollutants.
 - Students and volunteers of NSS and NCC and the Department of Environmental Studies of the University observe World Environment Day and

annual tree plantation programmes are also the efforts put in the direction of carbon neutrality.

f. *Plantation*

- “Sanjeevani Vrind” is a landmark achievement which has a rich plantation of medicinal value, especially the ‘amala’ plants. These amala plants are producing a great crop of amalas.
- The campus is covered by nice greenery including green lawns, avenue trees, departmental and residential gardens. University administration, engineering section, teaching & non-teaching faculty of Physical Education, Botany, Zoology, Earth Science, Environmental Science, Pharmacy and Social sciences with arts faculty buildings and others deserve all appreciation for plantation and caring for them. A very rich ‘Botanical Garden’ (awarded by MP state as Best Biodiversity Garden) having more than 200 species of rare and endangered plants are maintained. In addition of "Botanical Garden", "Environmental Garden", a "Medicinal Garden - cum Biodiversity Park” has also been established in the School of Studies in Botany. Approximately 100 species of plants of economic and medicinal importance are available over here. Many of them are rare, threatened and endangered. It is spread in an area of 5 acres.
- University staff members and students are actively involved in promoting plantation and spreading awareness among the masses. Various departments of the University especially the department of Environmental Studies conduct seminars, awareness programmes and observe days like World Environment Day, Forest Day and other such occasions every year. We also seek the guidance and association of the State forest Department in organizing such awareness programs.

g. *Hazardous waste management*

- The University is practicing appropriate norms for disposal and management of hazardous waste of chemical and biological laboratories. There is no radioactive material used for research or other studies in the University. Science departments have their own methods to discard the hazardous wastes.
- The University Campus has been declared as ‘NO POLYTHENE ZONE’ and ‘POLLUTION FREE ZONE’.
- 1st and 4th Saturday of every month is observed as ‘NO VEHICLE ZONE’ in the campus. Staff members and students of the university reach the campuses without any vehicle by driving bicycles.

h. *e-waste management*

The University is making efforts to develop appropriate measures for e-waste management. In this regard the planning is underway to auction the electronic wastes or exchange them through buy-back schemes of purchase.

i. Other endeavours of the University

a. “Vriksha Mitra Yojana”

University spreads the message of conservation of the rich existing bio diversity of the campus by observing “Vriksha Mitra Yojana’ where students and staff members of the university are enlightened to protect and conserve the ecology.

b. “Vikram Mahotsav”

Through annual “Vikram Mahotsav” celebrations along with cultural and academic programmes more and more impetus is given to promote the eco-friendly spirit among the members of the society where water pots are distributed during the summers for placing them for birds and animals to drink water during the scorching heat. Programs to clean the river Kshipra are organized at regular intervals.

c. “Kalash Yatra” (During ‘Kalidas Mahostav’)

All India Kalidasa Mahotsav is an annual event organized by Vikram University in association with Kalidasa Academy (an academy of Govt. of Madhya Pradesh). In the beginning of the event a highly solemn and serene ‘Kalash Yatra’ is organized from the bank of holy river Kshipra to the place of event that is welcomed by one and all en-route the ‘yatra’. This ‘yatra’ has a rich message for the society to preserve nature by saving water, trees and other natural resources and avoid any kind of harm to nature- indeed a perfect tribute to a true poet of nature Kalidasa.

7.2 7.2. Innovations

Universities are the seats of higher learning and the prime objectives of the University include creation and dissemination of knowledge. Innovation is the greatest driver of multidimensional growth in academic Institutions. The University has developed policies and these policies are being implemented for promotion of Research and improvement of teaching-learning processes.

Vikram University, being one of the oldest universities of the state of Madhya Pradesh has been instrumental in driving students towards it because of its systematic strategies in the areas of Expansion, Inclusion, Quality, and Excellence. The introduction of new courses, new centres have been instrumental to attract students from all nook and corner of the country. With the commitment to serve the underprivileged sections of the society the university has helped the marginalized sections to pursue their academic endeavours and reach the mainstream of the educational system. The policies of inclusion have been of tremendous helps for the underprivileged sections. Women students have been provided support by various concessions in the fee schemes and seat reservations. The university strives to achieve excellence in academic and research which can be seen in the research publications, projects, patents of the faculty members and researchers of the university.

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the University.

• **Jan Sunwai**

The University introduced ‘Jan Sunwai Programme’ which has been instrumental in addressing the problems or grievances of the students and their addressal with appropriate solutions.

• **Single Window System**

Single Window System has been introduced in the University to solve the problems of the students regarding examination, results, fees, correction of data etc. which allow the students to get their problems solved without wastage of time.

7.3 Best Practices

7.3.1 Give details of any two best practices which have contributed to better academic and administrative functioning of the university.

The University has developed excellent practices and are being implemented in the following three areas:

- a) Promotion of Research Activities
- b) Teaching-learning Processes.
- c) Community Development and Eco-Friendly Exercise

1. Title of the Practice

Innovations and Best practices in Promotion of Research on the Campus, Teaching-Learning Processes and community Development with Eco-Friendly Exercises

2. Objectives and intended outcomes of this practice and the underlying principles/concepts of this practice:

Innovations and Best practices in Promotion of Research on the Campus

Research is a scholarly and creative activity that supports one of the major academic missions of the University i.e., creation of Knowledge. Vikram University is exploring and practicing innovations in generation of knowledge by promoting research activities on the campus. The following innovative approaches for promotion of research are being implemented:

- ***Research & Innovation policy of Vikram University***

The University developed a document on ‘**Vision 2025**’ that delineates the immediate goals, short term goals, long term goals action pathways to be implemented in phased manner, and initiatives taken to fulfill the future vision. One of the missions of the University is ‘**Conduction of Applied and Quality Research**’ on the campus. In order to promote the research on the campus the University worked out a ‘**Research & Innovation Policy**’ document which delineates research mission, measures to be taken to ensure research excellence, innovations to be adopted to become the leader in advancing the frontiers of scientific research. The document gives the mission and framework for best practice processes and solutions that offer a strategic roadmap for quality research.

The University has been publishing ‘**Vikram Newsletter**’ and ‘**Poster**’ for the dissemination of necessary information to the stake holders. University also publishes noteworthy journals namely ‘**Vikram Mathematical Journal**’ and ‘**The Vikram**’ [Kalidas Special Issue] on regular basis for the benefits of the researches, students, and faculty members.

Thrust areas of focus have been identified in faculties of Physical Sciences, Life Sciences, Social Sciences, Arts and other faculties. The document envisages the strategies to be followed to accomplish the research goals and commitments of faculty members. Creation of good research work culture on the campus by addressing organizational and procedural barriers within the system are envisaged.

3. The Context (What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?

The basic prerequisites for achieving high standards in academic research, as identified by the University, are as follows:

1. Strategic planning and ensure research excellence

2. Integration of graduate and post graduate curricula with research
3. Focus on regional and national based issues
4. Preference for product oriented research
5. Interdisciplinary approaches in research
6. Availability of good infrastructural and advanced scientific instrumentation facilities.

The innovations and practices being followed to meet the challenges of the rapid advances in scientific research are detailed below:

a. Strategic Planning, Excellence in Academic Research

Vikram University has a reputation for excellence in scientific research and innovation. University identified the thrust areas of research in various disciplines keeping in view the academic expertise of the faculty, natural resources of the region, demands of the country, resources and facilities available.

[i] Faculty Excellence:

The University has faculty members specialized in diverse fields and area actively involved in research. The following best practices are followed to promote research excellence of the faculty members.

(a) To keep abreast with the advances in their areas of research specialization, the faculty members are encouraged to attend conferences organized by Professional Societies, Institutions; workshops on frontiers of science, individual training in National laboratories and premier research organizations. The University provides partial and full partial support to faculty for attending conferences not only in India but also abroad. Budgetary provisions are made specifically for this purpose.

(b) In order to broaden the horizons and to promote interdisciplinary and inter-institutional research, the University encourages faculty members to spend time in laboratories outside India. Several faculty members succeeded in securing fellowships from National and International agencies for their postdoctoral studies outside India. The University provides academic leave with full salary payment.

(c) The University encourages teachers to submit major research projects to National and International public funding agencies. The following best practices are underway in this regard:

i. Simplified Application Procedure: Applications procedures are highly simplified.

iii. Recognition of Research Contributions of the Faculty: The University developed a mechanism to encourage faculty by rewarding their prime research contributions. The University duly acknowledges the research contributions of the faculty and are duly rewarded with the support of Madhya Pradesh Council of Science & Technology, ICSSR, ICHR, UGC and other Funding Agencies.

iv. Student Training: The research students of SOS as well as those of affiliated colleges (private & public) are encouraged to attend national and International conferences, workshops to enhance their research skills.

v. Promotion of Research Excellence of Faculty of Affiliated Colleges: The University organizes 'Workshops' for the benefit of teachers working in colleges in order to promote academic expertise in specialized areas.

The University has plans to establish a research funding facility preferably for newly recruited faculty to initiate research in their areas of specialization. Also, the University plans to increase the number of research fellowships for students.

(d). **RUSA (Rastriya Uchha Shiksha Abhiyan)** The program of Human Resource Ministry which is under active consideration.

The University proposed two of the departments for recognition as 'Departments of Excellence' on the basis of research contributions to State Higher education department. These applications are under active consideration and likely to be successful. The funds sanctioned under this program would totally be dedicated for promotion of excellence in research on the campus.

Information resources:

Academic journals and publications are good sources of information researchers of all categories. The University has taken advantage of IT resources. The University succeeded in securing **UGC-Info net facility** for the benefit of researchers. International journals are made available with full access to the researchers on campus. Apart from online access to the research material university provides financial support for the subscription of national and international journals in print.

Impact of best practices adopted by the University

1. Resulted in high quality publications in international journals
2. Resulted in securing major research projects.
3. Resulted University securing major infrastructural grants and recognition of '**Departments of Excellence**' for Institute of Pharmacy and **Dr. Vakankar School of Studies** in AIHC.
4. The research contributions of the faculty of duly recognized and awarded in the form of fellowships of Professional Societies such as Royal Society of London and Prestigious Indian academies and awards to faculty and students in various conferences.

Challenges of research innovation faced by the University:

The major impediments faced by the University in promoting excellence in research includes scarcity of sufficient fund for the development of advanced infrastructural facilities for research.

Second Best practice

Title:

II. Innovations and best practices in Teaching –learning process

Teaching-learning process plays a critical role in dissemination of knowledge, the second aim of the University. The main stake holders in this process are students and teachers. One of the key issues in Institutions is to ensure that the quality of teaching and learning is as good as it can be.

Admission processes are made online: University is the one of the University of Madhya Pradesh State which made admission processes online.

Teaching-Learning Processes

Academic Calendar: The University announces academic calendar annually which provides date of commencement of the academic session, duration of semester, period of internal assessment tests, final semester examinations etc. Striking features of the academic calendar highlight teaching days, and State Government and local holidays. University provides course structure and examination schemes prior to the commencement of the academic session The University provides, at the beginning of academic session, Course structure, detailed Unit wise topics, number of teaching classes allocated for each Unit, to each and every student admitted to a given program. In order to ensure that detailed curriculum is available to students not only of Schools of Studies but also of affiliated colleges, the whole curriculum as approved by the Academic council is uploaded on Vikram University website.

Teaching is made student-centric:

Students are given representation in curriculum development, seminars, group discussions and they are prepared to develop the leadership qualities by giving representation on the basis of the best performance in their results. Also, the University is planning to initiate student-centered classrooms and the elimination of traditional teaching practices. The student-centered classroom operates on collaboration, project based learning, technology integration, and plenty of conversation between students and teachers about learning through regular seminars and presentation exercises.

Visiting faculty

Vikram University has reasonably well qualified pool of human resource to meet the teaching and learning processes of students. In self financing courses, where there is a resource crunch duly qualified faculty from local and Institutions outside Ujjain are invited on regular basis.

Visiting faculty from National laboratories , Central Universities, Emirates professors and well known Retired Professors deliver lectures to students in addition to regular faculty.

A separate fund is earmarked under unassigned head of UGC development grant for inviting experts from outside.

Mobile learning:

Field work is a necessary activity of the curriculum for some departments like Archaeology, Tourism, Earth Science and few other departments.

Every year these departments organize departmental field study tours. Very often local sites are selected and surveying, data collection, specimen collection, analysis and report writing are taught systematically and students are made efficient so as to prepare and submit a field report independently. On site experience of the field is proving more beneficial than the theoretical and

Innovations in Teaching Learning Process – An Outline:

- ***Generation of Creative Aptitude:***

The University created a culture of instilling and nurturing creativity and scientific temper among the learners through different clubs like Journal club, Physics club, cultural and literary club, Eco-commerce and management club, sports, writing articles, organizing science exhibitions independently or in collaborations with the governmental and professional agencies. To nurture creativity and scientific temper students are made to participate in the workshops, group discussions, debates, field visits, science exhibitions etc.,

- ***Feed back from students:***

The University has recently introduced feed mechanism from students and alumni on teaching abilities and processes being practiced on the campus. A separate highlighted icon is created in the University website for feed back from current and past students.

- ***Placement Cell:***

The University Placement Cell looks after the placements of students. The department has been instrumental in providing placements to the students. Efforts are being made to develop MOUs with Industrial houses.

- ***Entrepreneur Development Cell:***

The University has recently set up Entrepreneurship Development Cell to inculcate entrepreneurial skills among students with Dean Students' Welfare .

Quality Teaching:

There can be no short cut in quality teaching. It needs to be backed by good teachers and effective methods of teaching abiding by the global parameters and constant updation of knowledge. In this regard the University is making extra efforts to provide quality teaching to students. The faculty with high distinctions are available. Several teachers have been abroad on various fellowships. Few teachers are fellows of reputed National and International academies. Every faculty member in every department is provided with net worked computer (UGC Info net) to keep abreast with latest developments in the subject.

Impact of Innovative Approaches in Teaching-learning process:

The approaches and best practices followed resulted in:

1. Students clearing NET, GATE, SET, SLET, Banking and Civil Services examination
2. The placement record is also improved significantly.

Challenges in Teaching – Learning Process:

University at its level is trying level best to provide quality education to its students and promote the best research. But there are certain challenges that are being faced by the university.

- The University is making extraordinary efforts to recruit faculty from its own resources in the form of Guest/contractual teachers. This helps to meet the faculty requirements to meet all the necessary requirements of students and academia.
- The need of any other teaching-learning resources if arises is met in cooperation with the faculty members of the university and experts in the relevant field.

Any other information regarding innovations and best practices which the University would like to include:

The Vikram University is making sincere efforts to set up high standards in academic research and teaching & learning process to make the University one of the top most in India with in 5 yrs period.

Third Best Practice:

Community Development and Eco-Friendly Exercise

There are three Eco Friendly Exercises and Community Development practices running in University.

1. Clean and Green Campus: “Svacha Bharat Abhiyaan” in the university with Plastic free and Plantation with the help of Students, Forest Department of MP Govt and University Teachers and Staff.

2. Pollution Free Campus: We continue to make pollution free atmosphere in Campus with the help of No Vehicle Zone during Two days Per month in Campus. In this regard School of Studies in Physics has been the torch beare to motivate students to “Go back To Cycle Campaign.”

3. Morning Walk Association of Ujjain and ‘Sawstha Sansar Group’, Ujjain also with the Help of University to Improve the water Collection, Birds Counting in Campus and Social services activities in Campus.

7.4 Innovations and Best Practices to Promote the University Strength

Vikram University has always aspired to have unique mix of upholding the traditional values & historical legacy and the modern innovations & best practices. Ujjain is known for its folk art & culture, creative outputs in Sanskrit language, theatrical performances, religious virtues, seat of judgment and learning, historical monuments and manuscripts preservation, and academic brilliance. University imbibes all the virtues from its ancient city.

(i) ***Manuscripts Preservation and Awareness Programme***

Scindia Oriental Research Institute was established at Ujjain by the Regency Council of the erstwhile Gwalior State as a Manuscripts library in 1931. The institute has a rare collection of more than 20,000 manuscripts including BHURJA PATRA and PALM-LEAF manuscripts. The library of printed books consists of more than 16,000 volumes. The institute has its own Microfilm unit as well as a Microfilm Reader facility. It has been selected as a manuscript Resource & conservation Centre for the state of Madhya Pradesh by the National Mission for manuscripts, Department of Culture, Ministry of Tourism & Culture, Government of India. This institute has many rare manuscripts of historical importance from 9th century A.D. to modern times which are used for research purposes.

(ii) ***Automatic Weather Station***

The automatic weather station has been installed by ISRO at School of Studies in Earth Sciences on 24th September 2008. This instrument records various meteorological parameters such as atmospheric pressure, wind velocity, rainfall, relative humidity, daily temperature longitude and latitude etc. The data are being automatically transmitted to the Head Quarters of ISRO at Hyderabad

(iii) ***Foreign Languages Learning***

There is a full fledged Department of Foreign Languages in the University to teach foreign languages to the students. The Department of Russian (forerunner of the department of Foreign Languages) was established in 1969-70 with a view to imparting Russian diploma courses. In the year 2007-08 two more foreign languages were included to its curriculum. Henceforth this department was renamed as the Department of Foreign Languages. At present three foreign languages (Russian, French, and German) are taught in this department. In the era of Globalization there is an ever increasing demand for the knowledge of foreign languages. This department is successfully been catering to this requirement of time.

(iv) ***Ravi Ka Sankalp: A Cultural Spirit Promotional Programme***

This spirited cultural programme is organized on the eve of our Republic Day. Most sought after programme that witnesses the cultural brilliance of the students. The event is organized entirely by the students right from conducting to the performances. Many state and national winners in performing art perform on the occasion.

(v) ***Cultural and Academic Clubs:***

- ***Ulysses: An English Club***

School of Studies in English has established a Club to enhance the presentation skills, communication skills, soft skills of the students. Students organize regular events in the club where the participation is overwhelming.

- ***Physics Club***

School of Studies in Physics has very buzzing Students' Club known as the Physics club. The club organizes various activities throughout the year. Under the patronship of the faculty members of the department the club organizes inter departmental research paper presentation, Science quiz, debate and essay competition.