

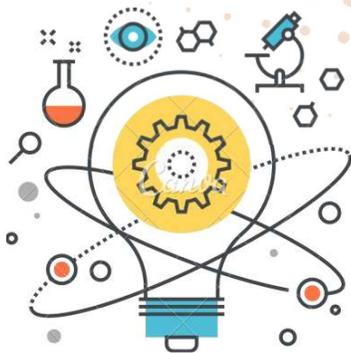
# Research & Innovation Policy

Barkatullah University

2023-24



MERU UNIVERSITY



# Mission and Goal

Our mission at Barkatullah University, Bhopal is to be the leader in advancing the frontiers of knowledge creation. The purpose of this research and innovation policy is to provide researchers, an environment where they could accomplish their academic excellence, research commitments and responsibilities within the resources they have in hand or the university could provide so that they may be motivated for knowledge creation. The policy is implemented since 2023-24 to achieve over set goals.

We envision a community of research scientists at all departments working to further strengthen the University's reputation for excellence in scientific research and extend it in the areas of emerging sciences, arts and social sciences through collaborations with basic scientists and researchers across the borders.

We support our mission and the fulfillment of this vision by striving towards the following goals:

Ø Ensure scientific excellence, innovation, and leadership through the recruitment and retention of outstanding faculty. Ø Integrate undergraduate, graduate, and postdoctoral education into all aspects of our research.

Ø Reinforce our position as leaders in the translation of new knowledge and scientific innovation into useful applications with patent rights.

Ø Identify and foster strong interdisciplinary research efforts based on individual disciplinary strengths.

Ø Promote efficient use of the advanced instrumentation resources for research.

# Strategic Assessment

The faculty research programs have long been recognized as one of the defining elements. Barkatullah University has a reputation for excellence in scientific research and innovation. This established strength is acknowledged and reinforced by the department's mission statement. We are committed to remain research-intensive departments. The high quality of the departments' research programs reflects the caliber of the research scientists and as a result, the quality of the Ph. D students and postdoctoral scholars with whom they associate. Many elements and characteristics of the departments contribute to the continued excellence of its research.

Most faculty members have collaborations with overseas scientific and organizations in addition to their distinguished laboratory facilities. Collectively, these factors create and reinforce a unique culture of collaborative innovation among the departments' researchers, presenting a distinguishing opportunity for the future. Along with these benefits, the relatively small sizes of departments also present certain challenges. Faculty turnover has been limited and has resulted in more retirement than recruitment of new faculty. Also, with a small group of faculty members, the loss of a key and senior member can have a major impact on continuing programs.

The past successes of research enterprise and the associated economic strengths of local information technology and biotechnology industries also present challenges to the future success of the various departments' research programs. Successful recruitment of new faculty and availability of advanced instrumentation are indispensable for speedy growth of research. A number of internal constraints, conventions, and organizational structures may also present challenges to a contemporary research agenda. These include organizational and procedural barriers and limitations in facilities development. While the continued strength of its research programs represent a key opportunity for the departments, its success will be dependent on the ability to meet these critical issues.

# Our Initiatives

Our mission and vision for research will be pursued through coordinated efforts of faculty, facilities renewal, collaboration and rational resource allocation.

To achieve our goal, we will start the following initiatives: Faculty Excellence

Ø Establish a research funding facility preferably for faculties.

Ø Develop reserve funds, and space for allocation to promising new areas of research.

Ø Establish guidelines for ongoing evaluation of new programs, education and research integration

Ø Enhance available students funding to doctoral/post-doctoral scholars in their research activities.

Ø Develop contemporary educational facilities, including adequate space for research facilities.

Ø Develop programs to facilitate the interaction of all undergraduate, and post-doctoral trainees.

## **Translational knowledge and research projects**

Ø Develop comprehensive core facilities for translational knowledge and research.

Ø Establish translational research facilities in all new faculties.

Ø To run research projects in departments of different faculties.

## **Prioritization and Implementation**

The further development, prioritization, and implementation of these initiatives will be led by the Dean of different faculties, in consultation with faculty research committee. Of the 21 initiatives proposed for the department research programs, the following have been prioritized for development and implementation in initial phases. These priority initiatives reinforce the importance of interdisciplinary translational research in the future success of the departments.

## **Promote Collaborations**

- Ø Mitigate existing cultural and geographic barriers.
- Ø Establish a management structure to ensure the efficient processing of research proposals and ethical conduct of research.
- Ø Include collaborating departments in faculty and promotion processes.
- Ø Require the documentation and analysis of opportunities for translational research in all disciplines.
- Ø Promotion of research to application and filing significant results as patents.

## **Strong Interdisciplinary Research**

- Ø Develop governance mechanisms for interdisciplinary programs and organizational models for departments.
- Ø Create a reserve fund for interdisciplinary programs.
- Ø Create research seminar series featuring interdisciplinary research opportunities.
- Ø Establish a faculty research network website to provide information on faculty research interests and collaborative opportunities.
- Ø Enhance activities of Patent Cell.

## **Rational Resource Allocations**

Develop a comprehensive research core facility, incorporating following principles:

- Ø Effective management and communication.
- Ø Rational budgetary provision to pursue entrepreneurship through university research facilities, reward creativity for original thinking and publication of research works.
- Ø Develop adequate space for advanced instrumentation facility under SIT scheme.
- Ø Develop a transparent process for efficient use of these facilities.
- Ø Develop a standard method for evaluating investments in new research opportunities and to develop IPR.
- Ø Establish new faculty recruitment policies.

## **Incubation center**

The university has incubation center which is providing following practices & provisions:

- Ø Financial support to innovative ideas.
- Ø Financial assistance for start-ups.
- Ø To organize workshops and trainings.

## **NEP 2020 & Research**

NEP 2020 emphasize research and creation of knowledge from conducive and all-level academic development. It will nurture the culture of research among learners as well as HEIs. The university is following NEP, 2020 to incorporate research in graduate and post graduate levels. It aims to build research environment in the university for every student admitted in it. The special focus is on seeding and nurturing the culture of research and innovation through funding support, guidelines, policies and establishing innovation and research centers.

Following considerations are taken under NEP, 2020:

- Ø Develop mechanism for interdisciplinary programs and research.
- Ø To provide advanced research facilities.
- Ø To provide financial support to conduct research.
- Ø To work with national and international research institutes under MoUs.
- Ø To publish quality research.

## **Research under PM-USHA Scheme**

The university has received grant of Rs. 100 Cr. under PM-USHA (Pradhan Mantri-Uchchar Shiksha Abhiyan) which recognize university as Multidisciplinary Education and Research University (MERU). The university aims to emerge as one of the best research facility provider by utilizing the grants and fulfilling the objectives of the scheme. The focus will be on:

- Ø To publish more patents.
- Ø Research platform for generating revenue.
- Ø To promote and practice Indian Knowledge System.
- Ø To make research data repository.
- Ø To provide link for research among undergraduate, graduate, PhD scholars, teachers and scientists.

## **Interdisciplinary Research Projects**

Hold research meetings to establish new program priorities

The Deans for Science, Arts and Social Sciences will work with the faculty research committee to establish a focused program and agenda to develop proposals to establish research programs and resource priorities and to evaluate departments' inventory of core facilities, including their service, organization and management relative to the above principles also to develop recommendations for departments' core facilities operations and management.

## **Establish guidelines for the creation and governance of interdisciplinary groups**

The Deans for Science, Arts and Social Sciences will continue the development of the proposed policies and procedure for departments, in general, and a Scientific Instrument Facility (SIF), in particular. Both documents will be reviewed by the faculty research committee and brought to the department Executive Committee for review and approval.

## **Resources Allocation Projects**

Develop a comprehensive core facilities incorporating the principles of:

- Ø Effective management and communication
- Ø Rational budgetary allocation

- Ø Accessibility and affordability, Ø Sustainability

## **Institutional support for research**

BU provides seed money, scholar scholarship, lab instrument funds, IKS research center, travel grant to teachers for attending conference, seminars, trainings etc.

## **Research addressing Sustainable Development Goals (SDGs)**

The sustainable development goals are one of the major objectives of our research in Barkatullah University. The Barkatullah University Bhopal is committed to contributing to the achievements of the Sustainable Development Goals (SDGs) through research, education, and community engagement. The SDGs, also known as the Global Goals, are a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. The departments are doing research focused on sustainable goals viz., zero hunger (SDG-2), quality education (SDG-4), gender equality (SDG-5), industry innovation and infrastructure (SDG-9), climate action (SDG- 13), life below water (SDG-14) and, life on land (SDG-15).

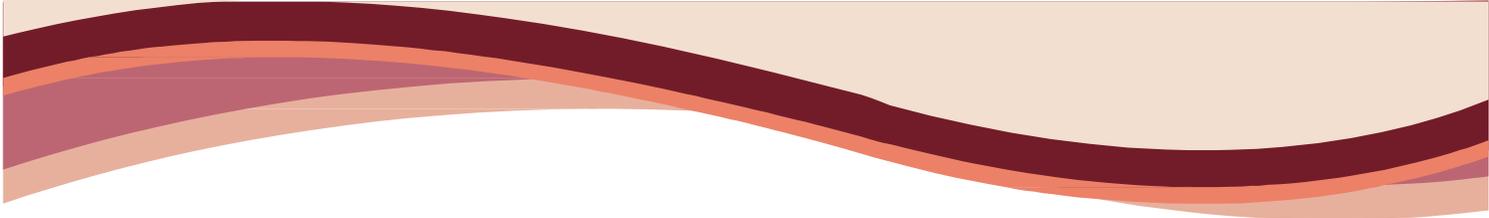
The university is documenting and generating data on these goals. The data so generated is useful for making developmental policies and mitigation suggestions. The research methodology is interdisciplinary and collaborative, involving a range of approaches, including field studies to gather data and understand the experiences of communities and individuals; data analysis from various sources, including government statistics, surveys, and remote sensing; engagement of stakeholder, policymakers, practitioners, and community leaders, to ensure that our research is relevant and impactful. The research so conducted has led to a number of significant outcomes, including policy briefs to inform decision-making at the national and international levels; to raise awareness and promote action on SDGs; to publish research papers in top-tier journals, contributing to the global knowledge base on SDGs. We will continue to work towards a more sustainable and equitable future, and to support the implementation of the SDGs in India and globally.

## **Research addressing government policies**

The Indian government has introduced various policies to promote environmental sustainability, such as the National Action Plan on Climate Change (NAPCC), the National Clean Energy Fund (NCEF), and the Swachh Bharat Abhiyan (SBA). The government has made significant progress in promoting environmental sustainability. There is need to address the challenges and limitations of implementing these policies. Our research focuses on various state and central government policies. These policies help in problem-solving, innovation, quality and advanced research. It also contributes in public awareness about these policies; strengthen policy frameworks and institutions to ensure effective implementation, utilization and monitoring of these policies.

## **Research addressing soft skill and skill development**

Our university recognizes the importance of soft skills and skill development in enhancing the employability and career prospects of our students. To address this, we have initiated research programs focused on soft skill and skill development, with the aim of identifying effective strategies and interventions to improve the skills of our students. Our research focuses on soft skill development, skill development, industry-academia collaboration and technology- enhanced learning. We have developed frameworks for soft skill and skill development, we have designed and tested effective interventions for soft skill and skill development, including training programs, workshops, and online courses. We have established strong industry- academia collaborations, which have led to the development of innovative skill development programs and soft skill enhancement initiatives. Our research has also contributed to improved student employability and career prospects, with many of our students securing jobs in top companies and organizations. Our university is committed to conducting research that addresses the needs of the industry and society. We investigate effective strategies and interventions for soft skill and skill development, and to design and implement programs that enhance the employability and career prospects of our students.



**INTERNAL QUALITY ASSURANCE CELL**  
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