



# Hemchandracharya North Gujarat University, Patan

Accredited by NAAC with "A" Grade (CGPA 3.02)

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## Research and Development Policy 2.0

The Research and Development Policy of the University aims to create and support a research culture among its teachers, staff and students and leverage it for enriching and enhancing the professional competence of the faculty members; for developing and promoting scientific temper and research aptitudes of all learners; for also for contributing to national development by establishing an institutional fund and plan for facilitating their participation in research and related activities and by providing the required resources and appropriate facilities.

It also aims at ensuring that the research activities of the University conform to all applicable rules and regulation as well as to the established standards and norms relating to safe and ethical conduct of research.

### Scope of the Research and Development Policy

**This policy shall apply to all the researchers of the University and for the purpose of this policy 'researchers' are defined to include**

1. All staff, temporary and permanent, who are active in teaching, research, administration and provision of any form of support to the core functions of the University.
2. All students registered with the University.
3. All mentors, guides, external experts and sponsors associated with any of the research activities of the University.

**This policy shall apply to all the research and related activities of the University and for the purpose of this policy research and related activities will inter alia include**

1. Research activities including basic, strategic and applied research undertaken either for fulfilling the requirements of academic degrees or for solving problems.
2. Scholarly activities intended to expand knowledge boundaries by analysis, synthesis and interpretation of ideas and information by making use of rigorous methodologies.
3. Knowledge compilation and communication initiatives for keeping abreast of academic developments in any knowledge domain such as writing of textbooks, chapters of textbooks, monographs; developing/updating curriculum, etc.



4. Creative activities involving the generation of new ideas, innovations, hypotheses, images, performances or arte facts, including design in any field of knowledge which leads to the development of new knowledge, understanding or expertise.
5. Research projects of students undertaken as part of the curriculum or for enriching it.
6. Publication, presentation and communication of the research outcomes and related activities.

### Objectives of the Research and Development Policy

- To strengthen the institutional capacity for strategic, technical and operational planning, budgeting and control of all research activities of the University.
- To create and administer a research fund for supporting and facilitating research initiatives and projects of faculty members and students.
- To develop rules, procedures and guidelines for granting research support, instituting awards, and supporting all other related activities.
- To develop rules, procedures and guidelines for granting study leave, sabbatical leave, duty leave, reduction in workload, etc. for faculty members undertaking research activities.
- To provide a modality of for proper coordination of all research activities of the University and aligning these to the vision and missions of the University and national development goals.
- To prepare and regularly update the research agenda of the University outlining the preferred focus areas and priorities of research activities to be supported
- To guide faculty members in the effective integration research projects with the regular curriculum implementation and curriculum enrichment activities.
- To identify and inform researchers about the appropriate research opportunities announced by different academic, research, industry or government organisations
- To promote interdisciplinary research and establish modalities for preparing and undertaking joint research projects covering more than one knowledge domain as well as policies for involving external agencies/experts in such projects.
- To define an enabling framework for researchers to obtain sponsorships for research projects and which makes the participating researchers responsible for the successful implementation of the project.
- To develop and promote linkages with the Research Degree Committee of the University and enable all the researchers of the University to benefit from the activities and programmes of the committee.
- To identify and establish linkages including MOUs for long term relationships with



national and international research organizations for widening the scope of research opportunities and funding options available to the teachers and students of the University.

- To identify and establish linkages including MOU s for long term relationships with industry bodies and individual companies for creating opportunities for teachers and students of the University to involve themselves in real life research projects and obtaining sponsorships.
- To encourage and facilitate the publication of the research work/projects in reputed academic journals.
- To encourage and facilitate the presentation/communication of the research work/projects as well as their findings and recommendations through academic events such as workshops/seminars/guest lecturers or the media.
- To compile data on all the research work/projects undertaken by the teachers and students in to a database for easy monitoring and analysis of the progress being made by them from year to year.
- To provide a mechanism for ensure that academic staff attain the desired mix of teaching, research and consultancy outputs so as to achieve the level stated in the University mission.
- To draw up and adopt a research code, which informs all researchers about the ethical and legal norms and principles to be followed in the conduct of research.

### **Composition of Research and Development Committee**

The Research Degree Committee shall consist of the following:

- Vice-Chancellor/ Professor / Director / Chairman
- Registrar – Secretary
- Head of the Department - Member
- Nominee of the concerned Departmental Research Committee – Member
- Emeritus Scientist(s)/ Emeritus Professor(s) - Member
- Visiting Professor(s)/ Honorary Professor(s) - Member
- Industry/Academia representative - Member
- Two student representatives - Members

Research Degree Committee may be expanded with the inclusion of more members as necessary.

### **Research and Development Policy Implementation Mechanism**

The Research Committee of the University shall be responsible for implementing this Research and Development Policy in campus.

1. To facilitate the faculty in undertaking research.
2. To provide research facilities in terms of laboratory equipment, research journals and research incentives etc. required by the faculty.
3. To encourage and promote a research culture (eg. teaching work load remission, opportunities for attending conferences etc.).
4. To encourage the faculty to undertake research by collaborating with other research organizations/industry.
5. To create suitable procedures for giving due recognition for guiding research.
6. To facilitate the establishment of specific research units/ centers by funding agencies / university.
7. To organize workshops/ training programmes/ sensitization programmes are conducted by the institution to promote a research culture on campus.
8. To invite industry to use the research facilities of the University and sponsor research projects.
9. To approach National and international organizations such as UGC, ICSSR, ICHR, ICPR, DST, DBT, UNESCO, UNICEF to fund major and minor research projects undertaken by the faculty / students
10. To make efforts to improve the availability of research infrastructure requirements to facilitate research.
11. To develop and implement an official Code of Ethics to check malpractices and plagiarism in research.
12. To create incentives for the faculty who receive state, national and international recognition for research contributions as well as research awards and recognition from reputed professional bodies and agencies.
13. To encourage and promote the publication of research articles by the faculty in reputed/ refereed journals.
14. To create and maintain a database of research work and research projects undertaken by the faculty and students as well as collect data by metrics such as Citation Index, Impact Factor, h-index, SNIP, SJR, etc.
15. To facilitate the provision consultancy services to industries / Government / Non-Government organizations / community/ public.
16. To prepare Rules & Guidelines for Grant of Research related leave and other remissions
17. To prepare a University research agenda with relative priorities.

Place : Patan

Date : 21/06/2022



(Dr. R. N. Desai)  
I/c. Registrar





सत्यमेव जयते



ज्ञान-विज्ञान विमुक्तये

F. No.1-5/2021(NEP/DESK-PARL)

14<sup>th</sup> March, 2022

**Subject: Implementation of Guidelines for Establishment of Research & Development Cell in Higher Education Institutions (HEIs)**

Dear Vice Chancellor/Principal,

As you are aware, the National Education Policy (NEP 2020) focuses on catalyzing quality research in the nation and lays the framework to strengthen research ecosystems in Higher Education. With this in mind, the University Grants Commission has recently formulated Guidelines for Establishment of Research & Development Cell (RDC) in Higher Education Institutions (attached herewith). The establishment of RDC in HEIs will pave the way for integrating the key elements- Research, Innovation and Technology development for India's *Atma-Nirbhar Bharat* mission and address our societal challenges of the 21<sup>st</sup> Century.

To facilitate its effective implementation, the Vice Chancellors of Universities and Principals of Colleges are requested to take appropriate action for the establishment of the Research & Development Cell as per the enclosed guidelines in their respective universities and colleges. I would appreciate if you share the initiatives taken in this regard on UGC's University Activity Monitoring Portal (UAMP) [www.uamp.ugc.ac.in](http://www.uamp.ugc.ac.in).

Looking forward to your active cooperation in this regard.

With regards,

Yours sincerely,

(Prof. M. Jagadesh Kumar)

**Encl: as above**

To

1. The Vice-Chancellors / Directors of all Universities/Institutions
2. The Principals of all Colleges

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# Guidelines for Establishment of Research & Development Cell In Higher Education Institutions

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# **Guidelines for Establishment of Research & Development Cell In Higher Education Institutions**



ज्ञान-विज्ञान विमुक्तये

**University Grants Commission**

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## Foreword

National Education Policy (NEP) 2020 envisages the promotion of quality research within the Higher Education System. Research, innovation and development are important aspects to enhance quality education by the Higher Education Institutions (HEIs). Societal challenges of our country can only be addressed by having a strong and vibrant higher education ecosystem with an emphasis on research, innovation and technology development. The integration of Research, Innovation and Technology Development is the foundation of Atma-Nirbhar Bharat (Self-reliant India).

I am delighted to present the Guidelines for Establishment of Research and Development Cell (RDC) in HEIs. The establishment of RDC in HEIs will enable attainment of targets of Atma-Nirbhar Bharat and is expected to play a pivotal role in catalyzing research culture mandated in NEP 2020. The purpose of these guidelines is to put in place a robust mechanism for developing and strengthening the research ecosystem within HEIs, aligned with the provisions of NEP-2020. The essential elements of such an ecosystem, viz., generation of knowledge and facilitation of research, innovation and technology development for industrial & societal benefits, are addressed by human resource, intellectual capital, governance and financial resources, information management system, research promotion & guidance, Integrity and ethics, capacity building and research monitoring. The Guidelines are to create a conducive environment for enhanced research productivity; to encourage collaboration across industry, government, community-based organizations, and agencies at the local, national, and international levels and to facilitate greater access to research through mobilization of resources and funding.

I am confident that the establishment of RDC in HEIs will help in creating new knowledge, creating a research ecosystem for reliable, impactful, and sustained research output and facilitating intellectual growth that would promote quality research and contribute meaningfully towards the goal of a self-reliant India. It is expected that these guidelines would be great help to HEIs in the establishment of RDC. I hope HEIs will find it useful and take the benefits of this initiative of UGC.

I take this opportunity to sincerely acknowledge the significant contributions of UGC Officials and external experts in formulating these Guidelines.



**(Prof. M. Jagadesh Kumar)**  
Chairman, University Grants Commission

4th March, 2022

# Guidelines for Establishment of Research & Development Cell In Higher Education Institutions

## Introduction

The National Education Policy (NEP) 2020 envisages the promotion of quality research within the Higher Education system. Research and innovation are important aspects to enhance quality education by the Higher Education Institutions (HEIs). Societal challenges of our country can only be addressed by having a strong and vibrant higher education ecosystem with an emphasis on research, innovation, and technology development. The integration of Research, Innovation and Technology Development is the foundation of Atma-Nirbhar Bharat (Self-reliant India). The establishment of Research and Development Cell (RDC) in HEIs will enable attainment of targets of Atma-Nirbhar Bharat and is expected to play a pivotal role in catalyzing multidisciplinary/transdisciplinary and translational research culture mandated in NEP 2020.

## Vision

To put in place a robust mechanism for developing and strengthening the research ecosystem within HEIs, aligned with the provisions of NEP-2020.

## Mission

- To create a conducive environment for enhanced research productivity.
- To encourage collaboration across industry, government, community- based organizations, and agencies at the local, national, and international levels.
- To facilitate greater access to research through mobilization of resources and funding.

## Objectives

1. To create an organizational structure with role-based functions of RDC, formulate Research Policy for the HEIs, identify thrust areas of research, and form related cluster groups/ frontline teams/consortia of researchers.
2. To create enabling provisions in Research Policies for recruitment of research personnel, procurement of equipment, and financial management with adequate autonomy to the Principal Investigator(s) and disseminate research outcomes to stakeholders and the public at large.
3. To establish a special purpose vehicle to promote researchers and innovators, identify potential collaborators from industry, research organizations, academic institutions & other stakeholders for cooperation and synergistic partnerships.
4. To act as a liaison between researchers & relevant research funding agencies, extend guidance in preparation & submission of project proposals and post-sanctioning of the grants to oversee adherence to timelines.

5. To have better coordination among other cells/centers dealing with University-Industry Inter Linkage, Incubation, Innovation and Entrepreneurship Development and Intellectual Property Rights (IPR).
6. To develop an Institutional Research Information System for sharing the status of ongoing/completed research projects/Programmes, expertise & resources, etc., making effective use of Information & Communication Technology (ICT) for preparing the database of in-house experts to provide industrial consultancy and services.
7. To engage & utilize the services of superannuated active faculty/scientists in research capacity building of talented young minds and promote mobility of researchers across institutions and R&D Labs.
8. To serve as nodal center for ideation and conceptualization of research topics/themes by organizing workshops and training programs and ensuring the integrity and ethical practices in research activities including clearance of bioethical committee wherever required.

## Functions

The UGC launched an initiative to establish a RDC in HEIs with the mandate for promoting quality research that contributes meaningfully towards the goal of a self-reliant India ("Atma-Nirbhar Bharat"), aligned with the provisions of NEP-2020.

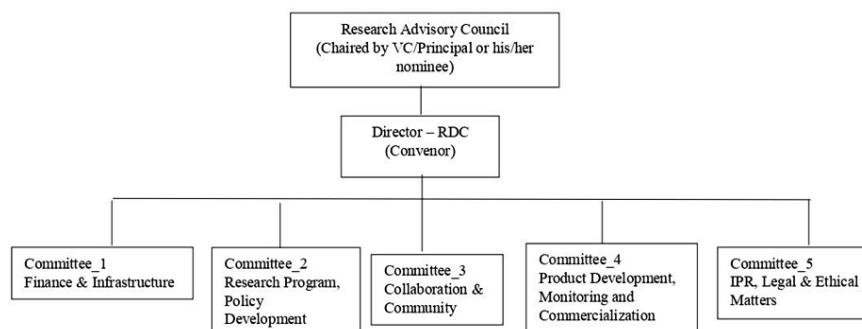
The RDC would help creating a research ecosystem for reliable, impactful, and sustained research output. The essential elements of such an ecosystem, viz., generation of knowledge and facilitation of research, innovation and technology development for industrial & societal benefits, are addressed by human resource (researcher & faculty), intellectual capital (knowledge & skills), governance (regulation & policies) and financial resources (funding & grants).

### 1. Governance

An efficient governance mechanism, which ensures functional autonomy, transparency, accountability, adaptability by strengthening interlinkages to create a conducive research environment.

The HEIs can foster the human elements (faculty, staff, scholars, and students), logistics (land, buildings, and facilities), knowledge resources (research equipment, project utilities, and consumables), fund flow, etc. through a steady, proficient, effective governance (Rules, Norms, and Policies) and financial (Grants and Funds) management. Dedicated leadership and administrative structure for research, led by experienced researchers, are essential for establishing an effective and robust Research Governance in RDC at HEIs.

The Research Governance will have a Research Advisory Council (RAC) headed by the Vice-Chancellor/Principal or his/her nominee as the apex body of RDC. The Director, nominated by Vice-Chancellor among the distinguished researchers from the university, will head various committees to drive the governance. RDC may form multiple committees to smoothen its functioning with respective committee members nominated by the Director – RDC and approved by RAC. The organisational structure of RDC comprising of various committees for specified functions may be as under:



## 2. Administration

Established organizational structure (Bodies, Authorities, and Committees) will facilitate planning, implementation, and monitoring of research activities in HEIs, formulate rules, regulations, and policy frameworks for utilization of facilities and resources at HEIs.

A strategy adopted to integrate multiple functional units can support institutional research under a single-window operational system for effective administration.

The activities of RDC will be mentored and monitored by various committees for devising research models, technology, appraisal, foresight & review functions, mediating sectoral R&D progress, and IPR protection.

RDC should keep a close contact with Ministry Innovation Cell to make use of various innovative plans for facilitating the researchers.

## 3. Research Ecosystem/Collaboration

A vibrant research ecosystem in HEI aims to provide meaningful thrust for sustainable research and innovation and promote collaboration between government, universities, research institutes and industries.

HEIs need to build a sustainable research ecosystem that leads to consistent quality research outcomes and enhanced productivity.

In order to make RDC functionality viable, the HEIs that are relatively new or not so well established should develop a connection with RDCs of already well-known/established HEIs for their research.

RDC in each HEI will act as a facilitator for networking and collaborative research with other national and international institutions working in inter- disciplinary, trans-disciplinary, and multidisciplinary research areas. Reformed administrative structure at HEIs can reach out to key industry players, research organizations, institutions, associations, NGOs, government bodies to forge strategic partnerships.

HEIs need to establish collaborations, teams/consortia, partnerships, and combined ventures for joint research activities through clustering institutions and organizations to facilitate the exchange of students, scholars, and faculty.

There is a need to strengthen resource sharing in content and infrastructure both within the university and among universities, funding agencies, industries, corporates and government.

## 4. Information Management System

HEIs play a key role in the advancement of research and innovation as two distinct entities through Research Information Management System (RIMS) for the benefit of faculty, students, industry and other stakeholders.

HEIs should put in place a RIMS to collect and manage research-oriented information, databases, publications, research projects, fellowships, collaborations, patents, thrust areas, innovations etc. aligned with the institution's research policies.

RIMS would also provide a platform for accessing resource-centric information pertaining to human capital (Expertise), physical capital (State-of-Art Research Laboratories and Sophisticated Instrumentation Facility), and knowledge capital (Digital Library & Information, Intellectual Property Facilitation, Quantitative Methods & Data Analysis, Analytical and Consultancy Services).

As per the requirements of various regulatory agencies, researchers can submit, modify, or update their research compliances such as protocol approval, training records, equipment lists, etc. RIMS can provide a centralized and integrated database to manage issues related to and radioactive-safety approval clearances for use and disposal of biological, chemical and radioactive hazardous materials, protective equipment measures, surveillance of staff, appropriate trainings/workshops, etc.

Each HEI needs to create a blog or portal for Institutional Research Information and Institutional Repository and sign an MoU with UGC- INFLIBNET to access and upload the research information through Shodh Ganga, Shodh Gangotri, Shodh Sindhu, Shodh Shuddhi, and Shodh Chakra.

The Innovation Management (ISO 56002:2019) can be implemented as a common framework to develop and deploy innovation capabilities, evaluate performance, and achieve intended outcomes of global standards.

## 5. Human Resources

The Director (RDC), the Conveners and members of various committees (nominated by the Director-RDC from/among the existing faculties with research credentials) and supporting administrative/technical staff would ensure smooth conduct of the research activities in HEI.

Re-employing or designating superannuated faculty/scientists with exceptional research profiles and eminent faculty as Mentors/ Scientists/ Professor Emeritus on a selective basis will help to build a resilient research ecosystem. Distinguished faculties or research scientists grooming young talents can help replenish the void created as a result of superannuated faculty/researchers.

## 6. Research Promotion & Guidance

Research promotion activities at the HEI should be aligned with the mandates of various National Missions, SDGs, Start-up India leading to a Self-Reliant India (Atma-Nirbhar Bharat).

Research Guidance from RDC will aim to encourage faculties to conceive ideas through enhanced industry-academia interactions and prepare research proposals for funding from various agencies. Organizing events like capacity- building programs (Research

Methodology and Research Techniques) and specific research theme-based workshops and Research Internships will motivate the end-users (students, scholars, and faculties) to participate actively in the process of ideation and innovative research in emerging areas.

### **a. Research Thrust and Clustered Areas**

Thrust areas for Research in an HEI should be identified, underpinning the societal needs and the availability of key resources, including in-house human resources, faculty research competencies, and support systems. This would enable HEI to consider establishing a Center of Excellence (CoE) in these identified contemporary areas of research.

Research Clusters and/or Regional Research Consortia prompted/formed by RDC to bring all researchers, faculty, students, scholars, and Post-Doctoral Fellows for joint high value (interdisciplinary and trans-disciplinary) research projects to avail national and international funding opportunities. Shared infrastructure and expertise will enable cross-fertilization of ideas and mobilization of resources. Further, forming Regional Research Consortia adds a synergistic advantage in finding solutions in inter-disciplinary, trans-disciplinary, and multidisciplinary areas.

CoEs' can serve as Incubation Centres to transform innovative ideas into processes and products administered and monitored by the proposed RDC. RDC could also provide an avenue for community talent with prior learning/expertise to engage in research and innovation activities of HEI.

### **b. Research Incentives and Recognition**

Incentives play a significant role in triggering and catalyzing research interest among scholars and faculties. Incentivizing quality publications and patents by students and faculty will have an enduring positive impact.

Institution of Excellence Awards for accomplishments/achievements in the form of impactful quality research and/ or research-based teaching will further stimulate and invigorate the research and innovation activities of the HEI.

RDC should also develop a policy focussing on identifying specific intensives for research faculty and develop a unique Research Career ladder for strengthening the mission "Research".

### **c. Technology Development and Business Centred Facility**

The Technology Development and business-centered facility will be a hub for strategic partnerships/ collaborations, industry-institute interface, sponsored or contract research, new knowledge generation, IPR, and patent services, venture capital, trade/market portfolio, technology transfer, and commercialization of research to facilitate innovation, incubation, entrepreneurship and start-up ventures.

### **d. Finance**

RDC can facilitate resource mobilization and create a Corpus for research and development from government, industry, and other funding agencies and channelize Corporate Social



Responsibility (CSR) funds for sustenance and furtherance of research activities. Apart from creating a Corpus fund exclusively for R&D, RDC can explore venture capitalists and angel investors for funding in research and innovation. It needs to liaise with funding agencies, and track funding opportunities from industrial consortia. The HEI may make provision for research in the annual budget subject to the availability of funds.

The corpus created for research could also support the seed funding for freshly recruited faculty for developing research facilities, publications and patenting.

## **7. Integrity and Ethics**

Regular initiatives by RDC will ensure that researchers understand the importance of integrity and ethics and comply with ethical codes of research and publishing practices at institutional, national, and global levels. A standard plagiarism check should be mandatorily implemented and the requisite software in this regard made accessible to all researchers. In addition, the RDC will sensitize the research community about dubious research and publishing practices and predatory journals.

## **8. Capacity Building**

RDC would play a crucial role in building the capacity of faculty and students to undertake research problems in line with the latest advances in diverse disciplines to push the boundaries of knowledge through publications and contribute to technological developments relevant to societal needs. It would also pave the way for HEI to attract more research grants under norm-based funding, improve its accreditation ranking and enhance its brand image. Regular events such as refresher courses, workshops, trainings/internships, group discussions and seminars/conferences may be organized for capacity building. RDC would play a pivotal role in creating central R&D facilities with the provisioning of associated training/internship thereon.

## **9. Research Monitoring**

The current policy environment in India encourages HEIs to be responsible and accountable for research development and innovation activities through the creation of infrastructure, generation of resources, promotion of business, and facilitation of policy framework to nurture the culture of quality research by adhering to ethical practices. Among the standard functions, the RDC in an HEI needs to monitor and oversee research progress, coordinate program, manage and facilitate optimizing resources, timely review of research activities for completion of the projects as per schedule.

HEIs need to formulate and adhere to specific quality benchmarks for research to meet the global/ international standards. The proposed RDC should conduct a quality review (SWOC Analysis) or internal evaluation of the research papers and suggest Scopus Indexed, Web of Science (WoS), or UGC-CARE recognized journals for appropriate publications.

R & D Cell of HEIs must ensure that all the Research Labs in the institution fulfill the norms of Good Laboratory Practices (GLP) and Safety (Bio and Chemical) measures, recognized as QIP center and by the National Accreditation Board of Laboratories (NABL).



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