

मेडी-केप्स विश्वविद्यालय, इन्दौर Medi-Caps University, Indore

RESEARCH POLICY - GUIDELINES

Version 2.0-1a,

Dt 19th April 2022

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(In exercise of the powers conferred under the provisions of Madhya Pradesh Niji Vishwavidyalaya (Sthapana Avam Sanchalan) Act 2007 (Madhya Pradesh Act 17 of 2007) and Article 9 C of its First Statutes, Medi-Caps University (MU), Indore, has laid down these policy guidelines with an objective to boost research among faculty members, staff and students to create knowledge through research. This is further amended in view of the UGC Guidelines (NEP) dt 14 March 2022 [Ref F.No.1-5/2021(NEP/DESK-PARL) dt 14th March 2022 from Chairman UGC, New Delhi], for the formation of RAC and RDC for the Medi-Caps University, whose details are given at pertinent places.

1. Scope

To nurture and grow the creative ideas into an innovative research that is intertwined with education that ultimately serves the mankind.

2. Policy Statement

Medi-Caps University is committed to be an Education, Research and Innovation oriented University that could contribute to society by becoming a knowledge hub. To attain this goal, it is imperative to pursue good quality basic research in all domains/ faculty of studies and progressively aim for cutting-edge, targeted, and applied research. Research to be conducted in a transparent, responsible and ethical manner for advancement of knowledge and development of novel processes, technologies and products. It is equally important to ensure that the products and outcomes of such research are appropriately disseminated to reach the widest possible audience for the benefit of mankind at both national and global levels.

While maximum care has been exercised in drafting this policy, it is still expected to have minor glitches and / or confusion regarding a statement. In such situations, the policy adapted by standing universities or UGC may be taken in to reference to resolve issues if any.

3. Rationale

Medi-Caps University is poised to become a university par excellence. To have a reasonable realization and to provide a basis / frame work conducive for nurturing the growth of creative ideas to an innovative level that could be tuned for societal applications.



4. Research Objectives:

- 4.1.1. Affirm quality research as an integral activity at the University; in fact, to be understood as a mandate.
- 4.1.2 Create and maintain 'state of the art' research facilities towards a transparent yet efficient system of maximum research output;
- 4.1.3. Maximize funding support for research through external sources while mobilizing internal sources as well as a seed grant;
- 4.1.4. Integrate research activities undertaken by the, post-graduate and doctoral students, wherever possible with the research focus of the University (to be defined time to time), preferably in alignment with the national thrust areas;
- 4.1.6. Provide a framework to conduct high quality original research in a transparent and ethical manner; deterministic in maintaining standards of education cum research at par with institutes of educational relevance to become an institute of eminence at the earliest
- 4.1.7. Ensure a facilitating environment for individuals as well as those affiliated with the University and provide continued effective support for pursuit of research excellence;
- 4.1.8. Efforts to translate, innovations, technologies and tools emerging out of research into possible products and processes for commercialization interlaced with societal benefit; due credit to the participating individuals and institutions.
- 4.1.9. Protection of Intellectual Property Rights (IPR) while maintaining zero tolerance for plagiarism.
- 4.1.12. Encourage research collaborations among different departments/faculties and with reputed Institutes, Universities and Research Organizations in India and abroad as well:
- 4.1.13. Ensure effective dissemination of activities and achievements towards national and international accolades and maximum possible accreditation with an aim to enhance the research profile of Medi-Caps University.

Policy Elaboration

Faculty members of Medi-Caps University are expected (in fact mandated) to undertake research activities in addition to their teaching and administrative responsibilities towards realizing the objectives.

Faculty who are eligible to supervise younger generation are requested to do so for dissertation of master's and thesis for PhD students.

Faculty are encouraged to seek assistance or funding from external resources for research, where appropriate.

Research activities to be carried out under the frame work of university research policy and, in accordance with regulatory and ethical considerations.

To achieve the objectives defined in Section 4, the following steps would be taken:

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Research Management:

As per UGC Guidelines said above, a two-tier management of all research activities at Medi-Caps University, has been implemented.

1. A Research Advisory Committee (RAC) for Medi-Caps University has been formed. RAC will have an advisory as well as implementation role.

2. A Research and Development Cell (RDC) for Medi-Caps University has been formed. RDC will have the roles of planning, implementation, and regular monitoring of all research and development activities.

The constituents of RAC and RDC are enlisted in Annexure-1.

As envisaged in NEP, Research Monitoring involves responsibility and accountability in research development and innovation activities through creation of infrastructure, possible generation of resources, promotion of business activities and facilitation of policy framework to nurture the culture of quality research by adhering to ethical practices.

A) The composition of the RAC will be as under: -

The Research Advisory Committee (RAC) may include 5 leading scientists from Medi-Caps and 3 eminent experts from outside the University. The term of the RAC is typically for a period of 3 years after which the same members may be opted for another term of 3 years. The members, numbering around 10, may be replaced in case of non-availability of existing member(s) for any reason.

B) The role and function of the RAC will be: -

It may meet at least twice in a year to review research progress, offer critical comments, and suggest corrective measures to enhance the research activities of the University.

To make recommendations to the academic council on matters related to promotion of research activities and the realistic need on infrastructure.

C) The composition of the RDC will be as under: -

The RDC shall be headed by a Director, senior professor nominated by Vice Chancellor. There shall be best possible representation from all the faculties / Institutes of MU for RDC as members, numbering around 10. The tenure of the members shall be of three years.

D) The role and function of the RDC will be: -

To train, educate, encourage and coordinate on a regular basis with all the stake holders of the University to achieve the research objectives of university as per section-4 of this policy as well as the guidelines of UGC from time to time.



Research and Development Cell and its areas of Governance

As per the guidelines of UGC, the RDC will have 5 committees for the following functions.

- Committee 1 Finance and Infrastructure
- Committee 2 Research Program & Policy Development
- Committee 3 Collaboration and Community
- Committee 4 Product Development, Monitoring and Commercialization
- Committee 5 IPR, Legal and Ethical Matters

Annexure-1 give the details of the existing structure.

The main responsibilities of the RDC will be:

- a) Short- and long-term research Planning
- b) Monitoring and Reviewing of Research

3. PhD Cell:

As per the Regulation-24 of Medi-Caps University, well-defined norms have been established to govern the PhD program of the University. In order to monitor this a PhD Cell is formed whose constituents include Dean of Research Affairs as its In-Charge, PhD Coordinator and Controller of Examinations as the members.

4.2. Human Resource Development & Management:

4.2.1 Competency Mapping and Faculty Development: A comprehensive mapping of the core and ancillary competencies of individual faculty members should be undertaken along with other soft skills to identify strengths and weaknesses. This will enable identification of research potential maximizing the output from each individual. It will also facilitate designing of custom-made faculty development programs to improve their skills and help faculty to overcome their weaknesses in order to maximize their contribution to the University.

To keep pace with the fast pace of technology change and research advancement at the national and global level, up-grade and remain competitive, it is essential for all researchers to be continuously updated also to enhance their knowledge and skills. While it is expected that the researchers will generate their funds for undertaking the research activities, Medi-Caps University (MU) may also support the research activities through internal seed funding in terms of PhD student fellowship along with reasonable consumable and contingency grants. The extent of support will be decided based on the potential of research outcome on peer review. It is expected from the researcher to ensure potential benefits to the University.

4.2.2 Chair/Honorary/Adjunct Professors: There are several distinguished scientists, researchers, academicians and other persons of eminence who may be invited to be associated with Medi-Caps in various capacities. Based on the relevant research expertise, a corresponding full-time faculty of Medi-Caps may be identified who may be made

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responsible for maintaining regular interaction. These luminaries may be invited to deliver lectures at Trainings/Workshops/Conferences or as a guest speaker for one time or for a subject course. Such activities are to be expected on a regular basis. These opportunities may be utilized for cross-fertilization of concepts/ideas and development of national/international research collaborations.

- 4.2.3 Medi-Caps University (MU) Fellowships: To attract brilliant, young minds to pursue research, Medi-Caps University will offer fellowships for undertaking projects for doctoral and post-doctoral studies. URF (University Research Fellowships) Fellowships have been instituted towards this in recent times.
- 4.2.4. Research Projects Undertaken by Faculty and Students: Medi-Caps University faculty are also expected to guide undergraduate, postgraduate & doctoral students where ever applicable in training/ research projects/ dissertations. These projects are termed "Student Research Projects (SRP)" and are expected to function shortly.
- 4.2.5. Seed Money Projects: Medi-Caps University faculty are expected to guide PhD students and, in that process, good R&D facilities are expected to be established. In order to start such activities, the university is extending its possible assistance by way of this Seed Money Proposals. This is highly useful to those who enter the university afresh and young or new to the university to start the R&D. These funds are nominal but act as a seed to further the research and to test novel ideas before one venture for externally funded projects. These are in line with the Regulation-55 of the Research Promotion Grant.
- 4.2.6. Collaborative Research Schemes (CRS-Projects): Medi-Caps University encourages its faculty and students especially the PhD scholars to understand collaborative efforts with national and international institutes and universities, institutes of national importance, institutes of eminence. CSIR, UGC, DAE, CRS, DST, AICTE, ISRO, DRDO, IITs, IISERs, IISc, Inter University Centres, State and Central Universities, private universities of repute are a few to mention. This aims in furthering their research capabilities including outreach activities and soft skills for personal as well as professional developments. Faculty are encouraged to submit research proposals in collaboration with like-minded interested groups while submitting projects of mutual interest under this for possible funding and exchange of resources and talent manpower.

Recent efforts on the wake of awakened CSR (Corporate Social Responsibility), there exists a finite possibility of mutual fund sponsors among like-minded universities. CRS proposals are initiated by keeping in view of these recent developments.

4.3 Generation and Utilization of Funding Resources for Research

Faculty members are expected to seek funding from external sources to support research activities, where appropriate. In exceptional cases, University may provide financial support/seed money for testing feasibility of new ideas/concepts and/or potential conversion of research ideas into reality. "University Funding for Research" is being planned and is in the

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process of implementation. The URF Projects, Seed Money Projects and CRS Projects come under this category and more are expected.

4.3.1 Collation and Dissemination of Information regarding External Funding Opportunities:

O Aim is to keep Medi-Caps researchers updated with information regarding schemes for funding opportunities announced by different national or international government/ semi-government/ private agencies from time-to-time.

Even though the concerned Directorate/ Cell for Research and Innovation may collect and collate all such information, and disseminate the same to the probable and interested researchers, faculty are requested to be proactive in obtaining such useful information by using their respective good offices.

The Directorate/ Cell may support interested or a team of self affined researchers to apply for funding opportunities;

O The Directorate/ Cell may support scientific collaborations with reputed Institutions/ University/Organizations from India and abroad as well to improvise research grants.

4.3.2 Workshops:

- Following category of workshops may be conducted by MU to create awareness and interest in the field of research
- o 'Awareness workshops' for identifying potential areas of current research interest.
- <u>'Thematic workshops'</u> could be organized after identifying a specific area to dwell in to detail and augment the proposal in that particular field.
- <u>'Training workshops'</u> to improve the quality of research proposals from young researchers and to sensitize them on the art of writing good and prospective research proposals.
- o All these workshops will be organized on a regular basis involving experts from both within and outside the University.

4.3.3 Pre-submission Assessment of Research Proposals:

Prior to submission to the funding agency, research proposals are expected to have a possible prereview by peers of respective fields. Peers could be identified by PI and his team preferably in consultation with Research Cell. They may be drawn internally, with in Indore or even outside Indore, must be persons of repute. Aim for two pre-reviews. Since this process is a time consuming, research proposals are expected to be made on a regular basis upon identifying a prospective funding agency. After writing a draft, discussion with Research Cell may be made to send them for pre-review. Based upon the inputs the draft can be modified and submitted to funding agency.

To cope us with time lines, the pre-reviewed proposals are expected at least two (2) weeks before the proposal submission deadline. The research proposal shall be submitted through the Medi-Caps University (Competent Authority / Registrar).

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- 4.3.4 Research Project Management: It is the responsibility of the Principal Investigator (PI)/ Project Coordinator to ensure smooth management of research project and implementation as per the procedures laid down by the relevant funding agency and within the frame work of Medi-Caps University (MU). It may include, but not limited to:
 - a) Hiring of manpower
 - b) Purchase of equipment and consumables as laid down in the proposal and consequently approved by the funding agency
 - c) Utilization of Contingency and Overhead Expenses
 - d) Timely submission of technical and financial reports
 (Include Statement of Expenditure and Utilization Certificate –
 SE & UC asper the format of funding agency.
 - e) Statement of Progress Report highlighting the outcome in the light of proposed objectives.
 - f) Submission of Project Completion Report at the end of successful completion to the funding agency with a copy to the Research Cell as well as office of MU for records. This should contain the SE&UC spanning the entire period of the projects, with copies of sanction and release orders, Scientifics / Technical reports, List of publications in journals of repute and in conferences, a small write up on societal relevance and proof for return of un-utilized funds if any back to the funding agency. This means the project should be closed technical and financial wise as well.
 - g) Ensure the completion of PhD for the participating student if any and publishing the outcome in journals of international and national repute including those with SCI. This should be done with due acknowledgement for the funding agency as per the requirement and to the Medi-Caps University as well.

To facilitate researchers in proper execution of research projects, training workshops may be conducted by the Directorate/ Cell (IQAC) on a as and when needed basis, covering various aspects including, but not limited to proper book- keeping, maintenance of records of experiments, etc.

4.3.5 **Project Monitoring and Assessment of Project Outcome**: The progress of all research projects, funded by external or internal sources, will be monitored by a Committee comprising of 3-5 experts from either within or outside the University so constituted by the Directorate / faculty of studies on a periodic basis. The Committee will evaluate the progress of the project as per the timelines detailed in the project proposal, identify bottlenecks if any, and offer suggestions for better research outcomes.

A Committee nominated by the Directorate/ Cell comprising experts within the University, will also evaluate the Research Outcome(s) of the completed project in consultation with researcher, and suggest future course of action.

4.3.6 Utilization of Project Funds: All funds allocated in the research project will be utilized for the specific purposes for which they have been allocated (for e.g., manpower, equipment, consumables, travel, contingency etc.). Utilization has to be as per the guidelines laid down by the relevant funding agency and under the frame work of MU.

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- 4.3.7 Research Infrastructure: It is imperative that state-of-the-art research facilities are developed, maintained and continuously upgraded to enable and facilitate cutting-edge research for generation of new knowledge, products, tools and technologies. Efforts in this direction is being planned.
- 4.3.8 Utilization and Dissemination of Research Outcomes: While it is important to create a research-friendly environment and encourage all forms of research (basic, directed and applied) at all levels (students, faculty and staff) in various domains (social sciences, biomedical sciences, basic sciences, life sciences, engineering and technology, etc.), it is equally important to optimally utilize and disseminate research outcomes to enhance the research profile of the University, both at national and global levels. This may include;

a) Protection of Intellectual Property Rights (IPR). Intellectual Property (IP) generated as an outcome of research, and conversion of the same for commercial benefit and/or societal use are described under the Policy for Intellectual Property Rights (IPR).

b) Publication of peer-reviewed Articles: Faculty and research scholars including students are encourage to publicize the research outcomes and gain recognition among peers for the quality of research being undertaken at the University, well in time. MU encourages publications in peer reviewed journals of national and international repute. Among the UGC, AICTE or GoI approved list, reputed journals of each subject (For ex SCI in sciences or those with IEEE status) to be identified and the results to be published in them.

c) Publication of popular articles to highlight the research outcomes and their potential benefits and to create awareness among the common public of India and abroad are being planned

under the theme of popularization.

d) Presentations of Research Findings at Symposia/Conferences and similar forums for sharing research outcomes, inviting comments and suggestions from peers in related fields, and forging collaborations with eminent researchers outside the University are encouraged.

e) Publications of Monographs/Books/Book Chapters for compiling advances in a specific area of research and its dissemination to specific target audiences are encouraged.

4.3.9 Data availability statement: Off late the journals of repute need a statement from the corresponding author of a manuscript about the availability of data collected by the research team. As a matter of good practices all the records have to be preserved and dissemination at a later date if any should be with the consent of participating authors and as per IPR policy as well. Normally such data should be available for a long period, viz atleast for next ten years to start with. Now a days many researchers from many institutions participate in a joint publication and hence one needs to follow the policy on all grounds. Hence it is entrusted with the corresponding author that he maintains the data and the collated data on behalf of authors and see that the readers are made available if a proper request is given. Corresponding author ensure the distribution of data to proper personal only and with a mention of safe guarding IPR as well. One can follow general practices of a good journal or reputed institution depending on the arising need. Research cell at MU may assist if needed,



5. Rules & Regulations

Researchers are advised to carry out their R&D with in the frame work of Medi-Caps University (MU), request to adhere regulations that will be evolving time to time for the betterment of institution and an individual as well. The R&D to be carried out with highest ethical standards. While MU will do its best to communicate the evolving scenarios and regulations through circulars, notices and interaction meetings, it is the duty of a researchers to become aware of such evolutions time to time so that the same is followed in their respective true spirit.

Need to evolve various committees such as, concerned relevance to use of Biological and Chemical entities like Control and Supervision on Experiments on Animals (CPCSEA), an Institutional Biosafety Committee (IBSC) and other mandatory requirements have arisen. They must be evolved in the light of existing guidelines of relevant statutory bodies of GoI and to be followed in toto. References may be drawn on existing guidelines or regulations of Institutes of Eminence or National repute on the subject of relevance and to be adhered time to time as resolved by the RAC / RDC of Medi-Caps University, Indore.

Acknowledgements:

The 'Team R&D @ MU' would like to acknowledge the vision and the consequent conscious support from the management towards realization of quality research. Equally the efforts of predecessors in making the draft ideas who made seminal contribution over two decades that forms the healthy tradition. Acknowledgements are due to various open sources available from the website of many reputed universities of national and international standing. Healthy yet suitable points to our scenario as a beginner that too as a private university were taken carefully after going through these information leaflets or brochures or ordinances and taken in an appropriate and limited manner to the best of our knowledge. References include UGC, GoI, DAVV & UGC-DAE CSR Indore, Amity University, India, LUND and Upsala universities, Sweden etc. Team is grateful to many teachers who have helped us. They include but not limited to those mentioned. Finally, acknowledgements are due to all members of 'Team R&D MU' for their inputs and efforts to draw out a sustainable policy.

Team R&D @ MU

Place: Medi-Caps University, Indore

Dated 19th April 2022

Medi-Caps University, Indore Office Note Dated 19th April 2022 Formation of Research Advisory Committee (RAC) for Medi-Caps University, Indore

Prof. D. K. Patnalk, Vice-Chancellor, Chairman Prof. D. K. Panda, PVC, Nominee of VC

Internal Senior Members

- Dear Research Director, RDC
- **Dean Science**
- **Dean Management**
- **Dean Engineering**
- Dean Agriculture
- **Dean Pharmacy**
- **Dean Humanities**
- Dean Student welfare

External Nominations - Invitees by VC

- Prof. Dr S N Kane, School of Physics, DAVV Indore, kane_sn@yahoo.com, 09893377409,
- 2. Prof. N K Totala, Institute of Management Studies, DAVV Indore, 09826507017
- 3. Dr. Colonel Raman Iyer, Prestige Institute of Management & Research, Indore, 09429893825
- 4. Prof. Dr Pragya Jarolia, Dept of Management, SVVV, Indore, 06264052232
- 5. Prof. Dr J T Andrews, GSITS, Indore, itandrews@gmail.com, 09425903487
- 6. Prof. Dr S K Majumder, Head, LBAD, RRCAT Indore, shovan.k.majumder@gmail.com, 09425062344
- Prof. Dr V R Reddy, UGC-DAE CSR Indore, Email: yrreddy@csr.res.in, 09425410641
- Prof. Dr Palani, Head Mech Engg, IIT Indore, palaniia@iiti.ac.in, 09009356097
- 9. Prof. Dr. Pankaj Sagdeo, Head, Dept of Physics, IIT Indore, psagdeo@gmail.com, 08964994599
- 10. Prof. Dr Abhishek Srivastava, Computer Science, IIT Indore, asrivastava@ilti.ac.in, 07898515660

- External Invitees List could be modified by MU depending upon the evolving scenarios and availability of members.
- In all Routine and emergent scenarios, the Internal committee is sufficient to handle the duties of RAC in tandem with RDC of MU.
- Couple of participations by external invitees could be sufficient depending upon the subject matter of discussion and of discipline relevance. Signatures by electronic means is allowed from external members or invitees.
- External Invitees Participation is preferable once in a year at-least.
- Participation by external invitees could be in on-line /hybrid mode. Suggestions by email and other electronic means are permitted to be included.

Submitted for Approval

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Dr. V. Ganesan Dean Research Dated 19th April 2022

Research Advisory Council (RAC) Chaired by Vice - Chancellor

Or his Nominee (PVC)

Research & Development Cell (RDC)

(Director: Dean of Research Affairs)
To be nominated by VC & Convenor)

Committee 1
Finance and Infrastructure
All Deans plus
Registrar & CFAO

Committee 2
Research Program &
Policy Development
All HoDs + All Deans + PI/co-PIs

Committee 3
Collaboration & Community
Prof I/C (Collaboration), All Deans +
PI if any

Committee 4

Product Development, Monitoring and Commercialization
All Deans + Prof. I/C (MIIC) + Prof I/C (IPR Cell)

Committee 5
IPR, Legal and Ethical Matters
All Deans, Prof I/C (IPR Cell), Registrar & CFAO

OSD, Registrar, CFAO and IQAC Rep (Invitees in all committees),
MIIC- Medi-Caps Innovation and Incubation Cell, IQAC Rep — IQAC Director or its Coordinators only
RAC and RDC Formation Date: 19th April 2022



Medi-Caps University, Indore Name of the officials as on 19th April 2022 Research Advisory Committee (RAC) and Research & Development Cell (RDC)

Please refer the above structure for details

Prof. D. K. Patnaik, Vice-Chancellor, Chairman Prof. D. K. Panda, PVC, Nominee of VC Shri Palash Garg, OSD (Officer on Special Duty)

Internal Senior Members

- Dr V Ganesan, Dean of Research Affairs
 Director, RDC
- Dr Ankur Saxena, Registrar
- Dr A A Koser, Dean Science
- Dr A A Koser, Dean Management
- Dr P S Nair, Dean Engineering
- Dr S D Upadhyay, Dean Agriculture
- Dr Sanjay Jain, Dean Pharmacy
- Dr A A Koser, Dean Humanities
- Dr Shilpa Tripathi, Dean of Student Affairs
- Shri Sanjay Dhare, CFAO, MU
- Dr S D Upadhyay, Prof. I/C Collaborations
- Dr Sarita Kansal, Prof. I/C MIIC
- Dr Ravindra Pathak, Head, International Affairs,

External Nominations – Invitees by VC

- 1. Prof. Dr S N Kane, School of Physics, DAVV Indore
- 2. Prof. N K Totala, Institute of Management Studies, DAVV Indore
- 3. Dr. Colonel Raman Iyer, Prestige Institute of Management & Research, Indore
- 4. Prof. Dr Pragya Jarolia, Dept of Management, SVVV, Indore
- 5. Prof. Dr J T Andrews, GSITS, Indore
- 6. Prof. Dr S K Majumder, Head, LBAD, RRCAT Indore
- 7. Prof. Dr V R Reddy, UGC-DAE CSR Indore
- 8. Prof. Dr Palani, Head Mech Engg, IIT Indore
- 9. Prof. Dr. Pankaj Sagdeo, Head, Dept of Physics, IIT Indore
- 10. Prof. Dr Abhishek Srivastava, Computer Science, IIT Indore

Dr. V. Ganesan

Dean of Research Affairs

Dated 19th April 2022

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