



Policy for promotion of research





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Policy for promotion of research

1. PROLOGUE

As per one of mission of Institute to promote research in the fields of Technology and Science, Institute is committed to achieve the excellence in research through multidisciplinary and collaborative research in the emerging areas of Engineering and Technology, Management and Architecture & Planning. The faculty, Research Scholars & Students of all the disciplines are motivated to undertake interdisciplinary research needed to build a sustainable society. The Institute has well defined policy for promotion of Research in the form of this document.

2. OBJECTIVES

- To facilitate for research grant/ Seed money to faculty for innovative research
- Recognition & support to faculty for national/international fellowship for advanced studies/research
- Recognition & support to faculty for receiving Research & development funds from various agencies, industries and other organizations (minor, Major, interdisciplinary, industry supported projects)
- Support for Innovative Students projects
- Support for National/International projects taken by faculty & students.
- Conduction of Workshop and seminar on IPR & Industry-Academia Innovative Practices
- Recognition & Awards for innovation by faculty/research scholars/students
- Promotion for Start-up / Incubation activities
- Increase in Ph.D. awarded & Admissions
- Increase in Research Publication in SCI indexed journals
- Increase in Books and Chapters in edited volumes
- Increase in Publication of research papers in national and international conference proceedings
- Increase in Patents applied/awarded/published
- Increase in Bibliometrics of the publications (Average citation index in Scopus/web of science or pub med/Indian citation Index and faculty H-index (Based on Scopus/Web of Science)
- Support for Faculty participation in Seminar/Conferences
- Revenue generation through Consultancy & Industrial training
- Collaborative activities for research, faculty exchange, students exchange



- Linkage with Institutes/industries for internship, on-the job training, project work, sharing of research facilities
- MoU signed with institutions of national, international importance, other institutions, industries, corporate houses.
- Research and development leading to technologies with immediate societal value (water, energy, housing, healthcare, education, etc.)
- To establish two or three research centres of excellence each year
- To increase the number of faculty members involved in sponsored research
- To increase the value of total funded research
- To increase the number of industry-driven projects
- To commercialise research innovations annually
- To encourage “idea to product” pre-incubation activity involving faculty and students

3. RESEARCH COMMITTEE

The Research Committee of the Institute is constituted on the recommendation of Head of the Institute and approval of Board of Governors of the Institute to consider matters relating to research, innovations and integrity of research functions.

Composition of Research Committee

1. Dean Academics	Chairperson
2. One Senior Professor	Member
3. Member Secretary Academic Council	Member
4. Head of the Department (Core Discipline)	Member
5. Head of the Department (Emerging Area)	Member

Tenure of Research Committee

In general, the tenure of Research Committee will be two years, however tenure may be increased by the BoG of Institute.

Functions of Research Committee

The main functions of the Research Committee are:

- To formulate policy on all research related matters which impact on the Mission & Perspective Plan of the Institute.
- To consider and make recommendations on matters of policy relating to research including matters referred to it by Head of the Institution.
- To review and oversee the implementation on Institution’s policy on research ethics.
- To monitor and control the efficacy of research facilities and support through the feedback from the beneficiaries and meetings with the Head of the Departments/faculty members.



- To oversee quality assurance and improvement measures in respect of research activity, including the efficacy of research quality measures.
- To report Head of the Institution regarding research and related matters.
- To review Research Projects progress/publication/research outcomes reports regularly relating to make recommendations to IQAC.
- To recommend the allocation of IRS/research funds and monitor their implementation.

4. INSTITUTIONAL FELLOWSHIP FOR PH.D. CANDIDATES

Eligibility Criteria: The Research Assistantship (RA) will be provided to Ph.D. candidates admitted through the selection process of RGPV, Bhopal and who are registered in MITS Research Centre as full time Scholars in Engineering & Technology Departments provided that they are not getting salary/financial assistance from any other funding agency.

Fellowship Amount: The Amount of Research Assistantship/fellowship will be as per UGC/AICTE norms.

Tenure: Initially for one year, extendable to maximum three years duration. Further, Extension of one year after completion of three years may be provided on the basis of publication and other criteria.

Leave and other benefits: (As per Institute norms and subjected to prior permission of competent authority):

- RA will get 20 days leave in an academic year
- The RA will be treated as on duty when permitted for attending technical events such as conferences/workshops etc.

Timings/Duties: Selected candidates will be required to follow Institute timings and other norms. They will be given a teaching assignment of eight periods per week as per the decision of Department in consultation with Supervisor. This could include tutorials/laboratory courses, lab development/maintenance, assistantship in research & development activities undertaken by Supervisor/Co-supervisor etc.

Performance Evaluation: A Six monthly review will be conducted by a duly appointed committee/Research Committee to evaluate the performance of the candidate. Every six months at least one paper should also be communicated /published in Journal/Conference for continuing the fellowship.

No. of approved Positions for RAs: The Board of Governors in its meeting held on 14th October, 2021 at MITS, Gwalior vide item No.2 (HR Item No.05 dated 18.08.2021) approved following numbers of Research Assistants/Associates in the institute.

No. of approved Positions for RAs	2021-22	2022-23	2023-24	2024-25
	10	15	20	25

- The decision taken by competent authority of Institute will be final.



Other norms: The financial support provided by the institute should be acknowledged in all publications by the Research Assistants.

- Above mentioned financial assistance will be given to deserving candidates subjected to the availability of the funds and recommendations of the committee constituted by the director.

Application Procedure: After publication of RA Notification, eligible candidates may apply for Full Time Ph.D. Fellowship under Research Assistantship Scheme of Institute on prescribed proforma available on Institute website along with necessary documents (Proof of Eligibility Criteria, GATE score card etc.) to the office of the Director, Madhav Institute of Technology And Science, Gola ka Mandir, Gwalior-474005 on or before prescribed date and time.

Declaration of Result: Result will be declared on Institute website <http://www.mitsgwalior.in> on notified date. Copy of result will also be available in the concern department. No separate intimation will be sent to the applicants.

5. SEED MONEY FOR FACULTY MEMBERS/ INNOVATIVE RESEARCH SCHEME

The Institute is providing seed money for faculty members UNDER “INNOVATIVE RESEARCH SCHEME w.e.f. year 2020.

Objective: The objective of the scheme is to utilize the expertise available in the institution to solve industry specific problems for the larger benefit of society.

Support will be given under the “Innovative Research Scheme” to recognize, encourage and support translational research by individuals to achieve excellence in engineering, innovation and technology development.

The Scheme is aimed at addressing and providing solutions to the most relevant engineering challenges faced by the nation by translating knowledge into viable technology (products or processes) in selected technology domains to enable, empower and embolden the nation for inclusive growth and self-reliance.

Eligibility:

- (a) Full time regular faculty of Engineering & Technology Departments of the Institute with research experience and publications.
- (c) The preliminary research facilities should be available in the Department.
- (d) Only one proposal from one PI (Principal Investigator) will be considered for sanction.

Nature of Proposals to be supported:

The scheme is aimed at supporting ideas that address a well-defined problem of industrial & societal relevance. Routine proposals that address conventional problems and those not related to industry, or with already established approaches are not encouraged. Ideally, the proposal must contain the characteristics of any of the following:



1. Proposals that adopt an innovative approach to solve a problem faced by the industry.
2. Proposals whose outcomes will bring new scientific and technological innovations.
3. Solution driven research that aid technology transfer and commercialization.

No. of approved seats for seed money : The Board of Governors in its meeting held on 14th October, 2021 at MITS, Gwalior vide item No.2 (HR Item No.05 dated 18.08.2021) approved following numbers of seats for seed money under IRS scheme. The sanction of IRS projects to the faculty shall be done by the Research Committee of the institute as constituted as per the UGC norms.

No. of approved seats for seed money	2021-22	2022-23	2023-24	2024-25
	10	10	20	20

The total limit of funding for the same is fixed as Rs. 3,00,000/- (Maximum) for each faculty selected under the IRS scheme

Nature & Duration of the Support:

Grant-in-aid, under the "INNOVATIVE RESEARCH SCHEME", is available for the research proposals with a time duration of 1.5 year. The research project will have an allocation upto Rs 3 lakhs, disbursed in two instalments. Limited extension of time may be granted by the Expert committee after a formal presentation. However, there shall be no financial enhancement in the initially sanctioned grant amount by Institution. The budget estimates for these proposals are required to be prepared on the basis of following heads of expenditure:

- (a) Expense on characterization of sample of R&D project undertaken by faculty
- (b) Seed grant for research to faculty members to venture into innovative research
- (c) Commercialization of research products
- (d) Patenting of research products
- (e) Travel support (National Level) for attending seminars, conferences, workshops and in Continuing Education Programmes etc. on the same area of Research.
- (f) Travel support (National Level) for industrial visit to explore the joint research.

Selection & Mode of Application:

- Proposals should be made in the prescribed application format. Proposals prepared by the Principal Investigator (PI) should be forwarded by the Head of the Department.
- The proposals can be submitted on or before deadline in the office of DIRECTOR, MITS Gwalior in a sealed envelope mentioning the "PROPOSAL UNDER "INNOVATIVE RESEARCH SCHEME"



- The proposal may be jointly submitted by the faculty members as Principal Investigator and the Co-investigator from the same department or interdisciplinary department.
- The selection will be based on scientific and technical feasibility of the proposal, track record of the PI & Co-PI (if any), and commercial/patentability potential.
- The IP generated shall be shared between the investigator(s) and the Institution.

Expected Outcomes:

- Generation of IP (Patents and copyrights etc.)
- Research papers in high impact indexed journals
- Paper presentation in standard conferences organized by reputed organizations
- Impact on research guidance (M.Tech. dissertations/Ph.D. produced) in the same area
- Development of Industrial Collaborations
- Impact on industrial/societal needs

Any publications or IP arising out of the scheme must clearly mention and acknowledge the support given by the institute under the INNOVATIVE RESEARCH SCHEME, both in print as well as on electronic media.

Performance Evaluation

- i. The Principal Investigator will submit a Six Monthly Progress Report of the project along with a certified statement of expenditure actually incurred and an estimate of expenditure for the next quarter/six months in the prescribed format. The release of subsequent instalment is subject to satisfactory progress of the work.
- ii. For the purpose assessment of the progress report submitted by the Principal Investigator the institute will hold a six monthly review meeting. The next instalment will be released only after the report is found to be satisfactory.
- iii. The Six monthly review will be conducted by a duly appointed committee to evaluate the performance.

6. FINANCIAL SUPPORT FOR RESEARCH PAPER PRESENTATION IN NATIONAL/INTERNATIONAL CONFERENCES/ SEMINARS/ WORKSHOPS

Faculty members/Research Scholars/Students are eligible to get financial assistance for attending Conferences subjected to recommendation of Research Committee of the Institute and if he/she is a presenter/first author/ Invited speaker/orator, provided no other agency has provided financial support for the same. A faculty is not eligible for reimbursement, for chairing a session or attending the conference only.



7. FINANCIAL SUPPORT FOR PARTICIPATION IN FDP/STTP/WORKSHOPS/TRAINING PROGRAMME

Faculty & staff members are eligible to get financial assistance for participation in **FDP/STTP/Workshops/Training programme** specific to subject domain/area of research/job domain/emerging areas on the recommendations of the concerned Head of the Department and prior permission from Head of the Institution.

The reimbursed for registration fee/TA/DA will be done as per AICTE/Institute norms if programme is conducted by a HEI of repute/Industry and is supported by recommendations of the Head of the Department.

8. RESEARCH AWARD/INCENTIVIZATION/MOTIVATION FOR GOOD PUBLICATION/RESEARCH OUTCOME

The Institute recognizes the research carried out by its faculty members and research scholars & students by granting "Research Awards" for publishing quality research papers, contribution to h-index of the Institute through citations, funded projects, and patents.

The IQAC of Institute has initiated the incentivization/motivation of faculty for good (High Impact Factor/Citation) research paper publication/presentation.

- Issuance of Appreciation letter/Award/Certificate for the faculty on the achievement of more than 10 citations in a year.
- Highlight/News on Institute website for the first publication to motivate young faculty members.

The provision for incentives and awards to faculty, research scholars, students & staff members exists for:

- procuring financial grants from external funding agencies/industries
- grant of patents
- prototyping of innovative ideas
- best Undergraduate projects

9. THE INSTITUTE JOURNAL [JOURNAL OF INNOVATIVE RESEARCH IN TECHNOLOGY AND EDUCATION (JIRTE)]

To promote the Research among the faculty/Research Scholars/students Journal of Innovative Research in Technology and Education (JIRTE) is being introduced under the banner of Madhav Institute of Technology and Science, Gwalior (M.P). The scope of JIRTE is not only limited to a specific aspect of innovative research, technology and education but also involves a wide range of interdisciplinary domains of science, architecture and management. Journal of Innovative Research in Technology & Education (JIRTE) will cover the following areas:



- Sustainable Technology
- Innovation & Skill Development
- Interdisciplinary/Collaborative Research
- Management of Technology
- Product & Technology Development
- Demonstration of Science & Technology Projects
- Novel Ideas
- Innovation in Technical Education

Quality research papers/articles of aforesaid areas will be considered for publication. The detailed information about the journal is available on the website: <https://sites.google.com/mitsgwalior.in/jirte/home>

10. SUPPORT FOR INNOVATIVE IDEAS

As per National Education Policy-2020 implementation plan of Institute to promote student driven innovations, patentable research, start-ups and to engage the students in innovation and start up activities in campus, the Institute has implemented the policy to promote INNOVATIVE IDEAS w.e.f. academic year 2021-22 for identifying, mentoring, nurturing innovative and entrepreneurial potential of students and transforming them into start-up entrepreneurs.

This policy of promoting innovative ideas aims to strengthen the innovation and entrepreneurial ecosystem in the campus and will be instrumental in leveraging the potential of Technology, student's creative problem solving and entrepreneurial mind-set.

The selected students (through an assessment process) will be awarded for their INNOVATIVE IDEAS and identified ideas will be supported through avenues of funding, Research & Development opportunities and collaboration/mentoring support to make the innovation and venture successful.

11. MOTIVATION & OTHER SUPPORT FOR STUDENTS RESEARCH

- Weightage for student Participation in National level events such as national level seminar, national conference, Entrepreneurship, techno culture fest, research conclave, project competition in PDC (Professional Development course) of 2 credits in the VIII semester, effective 2020-2021 admitted batch.



- Weightage of following research & Development activities of students in the assessment of 'development of product/research/paper publication aligned with the course under the Evaluation of 'Proficiency in Course':
 - Development of Hardware/prototype/software product
 - Development of an experiment
 - Publication/presentation of a research paper in conference/Journal
 - Course specific application towards community services
- Best Project Award for students on the basis of Research & Development outcomes presented in the form of Project.
- Library Resources in the Areas of Engineering, Research, Journals & e-Journals, Technical Magazines etc.
- World class research facility & to get involve in solving existing industrial problems at local/regional/National level.
- The Institute organizes seminars and workshops by eminent professionals in their respective research areas, wherein the student community actively participate to reach their benefits.
- Personal support and guidance for research & Development activities.
- Supervisory/Mentoring support for Collaborative/Multidisciplinary/Interdisciplinary Research

12. BUDGET ALLOCATION FOR RESEARCH ACTIVITIES

The budget allocation for R&D is done on the basis of requirement raised by departments to meet out the financial needs related to various components of Research & Development activities such as research resources, training and participation in conferences, industry interfacing etc.

The faculty members of the Institute are also provided necessary support for the submission of proposals to various funding agencies to get the Research Grants for reputed funding agencies like AICTE, DST, etc.

13. CODE OF ETHICS /PLAGIARISM POLICY

As per UGC (University Grants Commission) Notification for Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions dated 23rd July, 2018, Institute has implemented plagiarism policy to establish ethical values among students and faculty in 2018-19.



The plagiarism check is mandatory for all project reports/P.G. dissertations/ Ph.D. thesis/ papers communicated by the faculty and students to journals and conferences through Turnitin software available in the Institute. At each department, one faculty member has been designated as "Turnitin Administrator" to create awareness, to train others and to handle issues, if any.

In compliance to UGC Guidelines, a Departmental Academic Integrity Panel (DAIP) was constituted in year 2018-2019. In addition, Institutional Academic Integrity Panel (IAIP) was also constituted which will consider the submissions/ recommendations of DAIP.

As per norms, in research and other documents up to 15-20% overall similarity is permitted as acceptable (using turnitin plagiarism check software) provided that the highest similarity percentage from any one source is not greater than 4-6%. In case of self-plagiarism, the permissible percentage may be slightly higher, say at about 7-10%.

The draft of the 'National Policy on Academic Ethics' is uploaded on Institute MOODLE so that all students, faculty and staff can read and accept it.

14. NORMS FOR PH.D. SCHOLARS

To promote research culture in the Institution, the Institute is running Ph.D. Programmes in various Engineering & Technology Disciplines of Institute as per ordinance of the affiliating university (RGPV, Bhopal) for the degree of doctor of philosophy (Ph.D). The Schemes for research scholars as Quality Improvement Programme (QIP) of AICTE is available for following disciplines:

- (i) Civil Engineering
- (ii) Electrical Engineering
- (iii) Mechanical Engineering
- (iv) Computer Science & Engineering
- (v) Architecture

Schemes for research scholars as Research Assistants (RA)/Institute Fellowship is also available in the Institute as per details mentioned in the point no. 3. Norms for admission to the various Ph.D programmes available in the institute are available on Institute website.

The existing non Ph.D. faculty members are encouraged to complete the Ph.D. degree from the reputed HEIs as per existing norms for regular faculty members of the institute who are perusing Ph.D from other institutes.



Research Advisory Committee (RAC) for Ph.D. Scholars:

According to the Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal (RGPV) guidelines revised ordinance 11 Letter No. F-5/RGPV/Academic/2019/996 dated 02/05/2019 regarding constitute Research Advisory Committee for Ph.D. Scholars in the Institute, the RAC shall have the following responsibilities.

- I. To guide the research scholar in developing study structure and methodology for research.
- II. To identify the subjects of the course work.
- III. To review the research proposal and finalize the title of research before being submitted to the RDC.
- IV. To periodically review and assist the work of the research scholar.
- V. To evaluate the research work in view of the recommendation of the RDC, if any.
- VI. To conduct per thesis seminar of the research scholar.
- VII. To verify the requirement of publications as per clause 9.6 of this ordinance.
- VIII. To ensure that draft thesis is free of any plagiarism as per provision of relevant UGC Regulation-2018.

The Constitution of RAC:

1. Head of the concerned department - Chairman.
2. One representative from the concerned department, possessing doctoral Degree - Member
3. One representative from the other department of the research centre (preferably from allied department), possessing doctoral Degree - Member
4. Research supervisor of the scholar – Convener
5. Co- supervisor of the scholar, if he/she is from the same institute - Member
6. The convener shall nominate four expert, two each from the parent department and the other department. The head of the research centre shall then select on member each from the parent and other department.

Updated till 13.01.2022.