

**CALL FOR PROPOSALS  
UNDER  
“INNOVATIVE RESEARCH SCHEME– 2018”  
(IRS-2018)**



**An Initiative for Innovative Research Promotion**

**by**

**Internal Quality Assurance Cell**

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**

**(A Govt. Aided UGC Autonomous & NAAC Accredited Institute, Affiliated to RGPV, Bhopal)**

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute, Affiliated to RGPV, Bhopal)

No. 2590

Date: 30.07.2018

**CALL FOR PROPOSALS UNDER “INNOVATIVE RESEARCH SCHEME– 2018”**

The Institute invites Innovative research proposals from faculty members in the prescribed format on various topics under the broad identified thrust areas.

**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 – 2018” 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.

**Nature & Duration of the Support:**

Grant-in-aid, under the “INNOVATIVE RESEARCH SCHEME– 2018” , is available for the research proposals with a time duration of 1.5 year. The research project will have an average allocation broadly ranging between Rs 1 to 2 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 as attached. Proposals prepared by the Principal Investigator (PI) should be forwarded by the Head of the Department.
- The proposals can be submitted on or before 15.08.2018 in the office of DIRECTOR, MITS Gwalior in a sealed envelope mentioning the **“PROPOSAL UNDER “INNOVATIVE RESEARCH SCHEME– 2018”**
- 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.

**Thrust areas:**

(These may include, but are not limited to the following topics):

1. New materials;
2. New production technologies;
3. New testing technologies;
4. Industry and enterprise enhancements and solutions.
5. Sustainability – these include recyclability / renewability / - zero or low environmental impact ;
6. Competitive advantages for industries;
7. Disaster Management
8. Advances for society.
9. Nuclear Engineering and Allied Technologies
10. CAD/CAM, Robotics and Mechatronics
11. Product Design & Development
12. Design & Maintenance
13. Energy Efficiency, Renewable and sustainable Energy, alternative energy modifications.
14. Environmental issues

15. Electric and Hybrid Mobility
16. Smart Cities, Housing and Transportation
17. IoT, I2oT and Embedded Systems
18. Nano Science and Technology
19. Big Data, Machine Learning and AI
20. Drug modelling and development
21. Biomedical and Rehabilitation
22. Smart Technologies for Agriculture and Food Industry
23. Water purification, conservation and management
24. Smart Transportation
25. ITeS
26. Modular system designs for habitation
27. Communication Technologies
28. Mini, Micro and Smart Grid Technologies
29. Digital Signal Processing, Soft Computing, Micro-controllers and Applications
30. Power **Electronics**

**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-2018**, both in print as well as on electronic media.

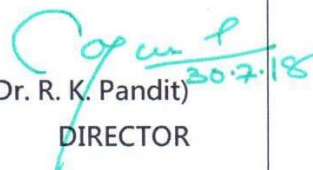
**Performance Evaluation**

- 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.

#### Procedure for Award & terms & Conditions

- i. Research project proposals will be evaluated by an Expert/ Review Committee set up for screening the proposals.
- ii. Thereupon, shortlisted proposals will be forwarded to the Expert/ Review Committee which in turn may hold interactive sessions/presentations of the research proposal by the prospective Principal Investigator to discuss the academic and financial details.
- iii. All research proposals selected for research grant will be placed before the appropriate authority for final approval.
- iv. The formal sanction order will be issued to the Principal Investigator after final approval.
- v. Second Instalment subsequent to the first will be released on the basis of the receipt of progress reports, including statement of expenditure incurred on the project. The recommendations of the Committee will be placed before the appropriate authority for final decision.
- vi. The said awards will be subject to the provisions for termination of project to be decided by the Expert/ Review Committee, in case the progress report of the grantee will not be found satisfactory.
- vii. After completion of the project a **Project Completion Report** must be submitted in the prescribed format.
- viii. For all disputes arising in the process of inviting, processing, awarding the research grant, the final decision will remain with Director of the Institute.
- ix. The Principal Investigator already having ongoing research projects from any other funding agency shall not be considered unless the ongoing projects are completed.
- x. The Principal Investigator has the primary responsibility for the implementation of the project.
- xi. Once the project is sanctioned, the Institute shall not consider any request for additional grant.

Above mentioned financial assistance under "IRS-2018" will be provided to deserving faculty members of MITS Gwalior, subjected to the availability of the funds and recommendations of the committee constituted by the Director.

  
(Dr. R. K. Pandit)  
DIRECTOR

#### Copy to:

- a. All Head of the Departments to circulate among faculty members,
- b. Dean (Academics),
- c. Coordinator IQAC,
- d. PA to Director,
- e. Shri Atul Chauhan/Data Resource Centre for Circulation,
- f. Web manager.

## APPLICATION FORMAT

## Section-A

1. Name, Designation & Department of the Principal Investigator:
2. Name, Designation & Department of the Co-investigator:  
(In case the Principal Investigator leaves the Institution or goes on long leave, the Co-Investigator would be allowed to continue with the project, subject to approval of Director of the Institute.)
3. Detail of Principal Investigator:
  - a. Email address
  - b. Mobile No.:
  - c. Date of Joining in the Institute:
  - d. Qualification Details:

Degree	Specialization	Institute	Affiliating University	Year of Passing/Award	%/Grade
UG (BE/B.Tech /B.Arch./other)					
PG(ME/M.Tech/ M.Arch./MCA/ other)					
Ph.D.	Title:				
Any Other					

- e. Teaching Experience at Degree Level as on date of submission of application:

S. No	Name and Address of Employer /Institution	From (Date)	To (Date)	Years-Months	Designation

- f. Industrial/ Research Experience as on date of submission of application:

S. No	Name of the Organization	From (Date)	To (Date)	Years-Months	Designation

- g. Short Term Courses attended

S.No	Name of the Course & Category	Organizer	Days	From	To

h. Research Papers/Book

S.No	Title of Paper/Book	Name of Author(s)	Name of Journal/Conference	Year	Vol.	Pages

i. Details of Previous project undertaken/ongoing:

S. No.	Name of Scheme	Funding Agency	Amount of grant received	Duration of project	Date of Project Sanctioned	Date of Completion of Project	status

10. Any other information to support the claim of award of project:

**Section-B**

1. Broad area under which the application is being submitted:

2. Title of the Project:

3. Duration of the Project:

4. Detailed project proposal:

a) Abstract:

b) Objectives & relevance of the Research Project:

c) Research Problem: (Provide a clear and simple description of the research problem)

d) Detailed methodology:

e) Year-wise work plan:

f) Practical relevance/utility of the project (Technical novelty and utility):

g) Expected and other physical outcomes of the project:

h) Beneficiaries who can utilize the results of the project:

i) Commercial feasibility of the project:

j) Expected/possible patentability of the research outcomes:

5. Total Budget: Amount (INR):

6. Project Budget Estimates:

Sr. No.	Budget Head* (Ex: Equipment/components/Travel/contingency & Consumables)	Item/Activity	Amount	Justification
<b>TOTAL</b>				

\* Please refer nature and duration of the support: section in the scheme document

Declaration:

(a) The research work proposed does not in any way duplicate the work already done or being carried out elsewhere on the subject.

(b) The same project work has not been submitted elsewhere for financial support.

(c) I agree to abide by the terms and conditions of INNOVATIVE RESEARCH SCHEME– 2018 & the Institute prescribed from time to time.

(d) I solemnly confirm and verify that the information submitted in respect of this proposal for seeking grant from Institute under Innovative Research Scheme-2018 is true and correct to the best of my knowledge and belief.

(e) In case, at any point of time it is found that information provided in this proposal is false or incorrect, Institute will be at liberty to withdraw the grant given to me and i shall be liable to refund the entire amount of the grant with interest thereon and also liable for any other action that the Institute may deem fit. I also understand that Institute may not consider my future proposal in this circumstance.

Place & Date:

Signature of the applicant

Forwarded by

Name & Signature of Head of the Department