

# **GUJARAT TECHNOLOGICAL UNIVERSITY**



# SEED MONEY SCHEME (SMS) FOR

MINOR RESEARCH PROJECT



# **Gujarat Technological University**

# Policy Document On Seed Money Scheme (SMS) For

**Minor Research Projects** 

(Effective from Financial Year 2020-21)

# **Background**

Gujarat Technological University (GTU) is established in 2007 as a technological university with the objectives of developing knowledge of science, engineering, technology, management for the advancement of the quality of life of the mankind by creating centers and institutions of excellence in the above mentioned academic domains.

GTU is a State University with More than 420 affiliated colleges in its fold operating across the state of Gujarat through its FIVE zones at Ahmedabad, Gandhinagar, Vallabh Vidyanagar, Rajkot and Surat. The University caters to the fields of Engineering, Architecture, Management, Pharmacy and Computer Science. The University has about 4,00,000 students enrolled in a large number of Diploma, Under Graduate, Post Graduate programs along with the robust Doctoral program. GTU has successfully started its post Graduate Schools in the area of Engineering, Management, Pharmacy and Biotechnology and offering very unique AICTE/PCI approved programs. GTU believes that...

"Literature offers the thrill of minds of great clarity wrestling with the endless problems and delights of being human. To engage with them is to engage with oneself, and the lasting rewards are not confined to specific career paths."



### Vision

To be a global university for the creation and dissemination of knowledge and Innovation in Science & Technology, Humanities and Multidisciplinary domains for sustainable development and enrichment of human life.

# Mission

- 1. To develop centres of academic excellence at university premises and at affiliated colleges in domains of science, engineering, technology, management, and environment for imparting comprehensive education, training, and research infrastructure as per the nation's requirements.
- 2. To build resources, facilities, proficiencies and other related infrastructure of global standard for the development of knowledge, skills, and competencies in the various educational domains.
- 3. To develop research-oriented pedagogy for flourishing ideas and to nurture innovators, entrepreneurs and professionals of tomorrow.
- 4. To build and enhance collaborations with other academic, research, industry, and government organizations as well as NGOs across the globe so that education, training and research at university and its affiliated colleges become aligned with national and global level requirements.
- 5. To encourage multidisciplinary research and develop flexible learning ecosystem.

### **CORE VALUES**

- 1. Excellence with value-based education.
- 2. Responsiveness to society.
- 3. Integrity and transparency.
- 4. Mutual Respect.
- 5. Sustainable development.

### 1. Introduction:

Research and Development is a systematic process of basic and applied research to discover a solution for problems faced by society or creating new knowledge and products. It may result in the form of patents, research publications and copyright etc. Seed Money Scheme (SMS) has been initiated by Gujarat Technological University to provide minor research grants in different areas to motivate Faculty Members and Post Graduate Students to enhance their research interests, which may lead to major research proposals for submission to National/ International funding agencies. Seed Money Scheme (SMS) is designed to stimulate competitive research in strategic areas of national or international importance, to promote innovative product and technology development, and/or to facilitate the social science research for the betterment of society at large.

# 2. Objectives of Seed Money Scheme (SMS):

- 2.1 To promote and the research activities of PG school faculties and regular Post Graduate students of various departments of Schools and Research Centers of university to initiate or continue their research activities.
- 2.2 To encourage interdisciplinary research among various Programs of PG Schools of University.
- 2.3 To promote inter-faculty collaboration in emerging areas.
- 2.4 To promote generation of IPR and product/process development.
- 2.5 To test a novel idea and to generate preliminary results before submitting funding proposals to external agencies.

# 3. Eligibility for Seed Money Scheme (SMS)

### 3.1 Eligibility norms for Faculty Members

3.1.1 The faculty member (Assistant Professor, Associate Professor, Professor, Director) must be serving at any departments of Post Graduate Schools or PG

Research Centres or Innovation Council or constituent institute of University on regular/contractual basis at the time of application.

- 3.1.2 The scheme is applicable to all regular or contractual faculty members.
- 3.1.3 The scheme is applicable to those faculty member only who did not receive any grant for research projects from external funding agencies during last five years.

# 3.2 Eligibility norms for Ph. D Scholars and PG Students:

- 3.2.1 All full-time students of 2 years Post Graduate Program offered by any PG Department of GTU Schools is eligible for this scheme.
- 3.2.2 The PG students must be in the second/third semester of the PG Program are eligible to apply for this scheme
- 3.2.3 The applicant student should not have any backlog in the previous semester(s) of the program. If university result is not declared before the last date of the submission of proposal, than internal exam result is considered for backlog.
- 3.2.4 All full-time Ph. D Scholars who are working under the supervision of faculty member at any PG Schools of GTU are eligible to apply for this grant. The Ph. D Scholar must completed 2 DPC but before the completion of 6<sup>th</sup> DPC may apply for this grant.
- 3.2.5 The student cannot become a co-investigator in more than one project during any cycle of the seed money scheme.

# 4. Financial Assistance and Duration of Project under Seed Money Scheme:

- 4.1 The financial assistance of Maximum INR 1,00,000 will be given to the faculty member under this scheme for approved project
- 4.2 The financial assistance of Maximum INR 25,000 will be given to the student/scholar under this scheme for approved project
- 4.3 The duration of the project under this scheme is maximum of 1 year from the date of sanction letter issued on the name of Principal Investigator.
- 4.4 The project duration would be extendible by a maximum of 3 months if requested by Principal Investigator with the recommendation of respective

Director of PG School/Innovation Council prior to one month of project submission date with proper justification and would be subject to approval of Hon'ble Vice Chancellor.

# 5. Disbursement and Utilization of Grant under Seed Money Scheme:

- 5.1 The grant amount will be disbursed by university only after submission of sanction letter of the project to the account section. The 50% grant amount will be disbursed by university at the time of submission of sanction letter to account section and remaining 50% will be disbursed after successful submission of the project within the time limit as well as submission of utilization certificate along with original bills. These bills must be approved by School level committee.
- 5.2 The grant will be disbursed on the name of Principal Investigator through direct bank transfers only
- 5.3 The Principal Investigator should use this grant for the purpose of conducting the data collection, travelling expenses, conducting experiments, paper publication (publication only in Scopus, Web of Science, IEEE indexed journals) charges, patent filing fees, printing, binding and other miscellaneous expenses only.
- 5.4 The Principal Investigator can utilize a maximum of 50% of the approved grant to purchase and install the equipment/database/software related to the project of seed money. The assets should be purchased in the name of the school/constitute institute of GTU and ownership of asset must be lying with University only.
- 5.5 The Principal Investigator has to submit Utilization Certificate at the time of submission of Project Report.

# 6. Norms to act as Principal Investigator (PI) & Co-Investigator (CI):

- 6.1 Any eligible student/scholar or faculty member (as per above point no.3) may act as Principal Investigator or Co-Investigator
- 6.2 A Faculty member can act as Principal Investigator in one project only. However there is no limit for the faculty member to act as Co-Investigator in any other projects.

6.3 The student can also act as Principal Investigator in one project only. The same student may not act as Co-Investigator in any research proposal under this scheme.

# 7. Number of Application under Seed Money Scheme

- 7.1 The ratio of 1:10 is allowed for PG students of each department (PG Program) of GTU PG Schools. So, 1 application for every 10 students is allowed for the students' category. The ratio of 1:10 is based on approved intake(without considering EWS category) by AICTE of each Program. In case of more number of applications from any department, the departmental scrutiny committee (headed by the Director of the School) has to forward the proposal in the given ratio only to IQAC for further consideration of the application underthis scheme based on the merit of the proposal.
- 7.2 There is no restriction for the number of applications for the faculty members and Ph.D. Scholars of PG Schools/Centres/GIC/constitute institute under this scheme. However, it is to be noted that the faculty member whose Research Project is approved under this scheme, will not be eligible for next one financial year to apply for grant under this scheme.
- 7.3 The Principal Investigator (faculty member or student) can apply for one research project at a time under this scheme.
- 7.3 The departmental scrutiny committee should consist of three members i.e. Two faculty members and a Director/Principal. The faculty members may be a Professor, Associate Professor or Assistant Professor of any department from the same PG School/constituent institute.
- 7.4 The departmental scrutiny committee is required to form in all the schools/constituent institute irrespective of number of applications of students/faculty members.

# 8. Submission of Project Proposal to IQAC

8.1 The proposal of research Project under this scheme is invited twice during the financial year (1<sup>st</sup> April to 31<sup>st</sup> March) as per following schedule. The faculty member and student/scholar must follow below given schedule strictly.

Sr. No.	Application Dates	Announcement of List of Approved Research Projects
1	1 <sup>st</sup> April To 30 <sup>th</sup> April	By 30 <sup>th</sup> June
2	1 <sup>st</sup> October To 31 <sup>st</sup> October	By 31 <sup>st</sup> December

- 8.2 The submission of proposal should be done during above mentioned dates only. No submission other than given dates are accepted by IQAC
- 8.3 The submission of proposal should be done in the prescribed format only. The format is available in the Annexure-I
- 8.4 The final project is required to submit in the prescribed format within in the time-limit. The format is available as per Annexure-II

### 9. Criteria for Selection:

- 9.1 Intrinsic merit of the work and potential impact of the research on the academic field of study
- 9.2 Potential for the award to provide a basis for further research support from external sponsors
- 9.3 Likelihood that the proposed work will be completed during the award period
- 9.4 Innovative interdisciplinary research in the thrust areas of relevant discipline
- 9.5 The application will be scrutinized by the expert committee appointed and headed by Chairman IQAC i.e. Hon'ble Vice Chancellor. The decision of Hon'ble Vice Chancellor will be final and no further communication will be accepted from applicant regarding the non-acceptance of the proposal.
- 9.6 The university will hold its right not to award or consider any proposals in a year, if they are found incomplete or unsatisfactory.

### 10. Other General Guidelines:

10.1 Approved Project under this scheme would be non-transferable in any circumstances. If the Principal Investigator leaves GTU during the project tenure, he/she is bound to submit the project within required time frame as per the submission guidelines under this scheme.

- 10.2 In case of death of Principal Investigator, the co-Investigator has to complete the project and submit the same. If Co-Investigator is not available then the Director of the school must assign the remaining work to any other faculty member of the department to complete the project and submit the same.
- 10.3 If the Principal Investigator fails to complete the project with in time limit, he/she would have to refund the entire amount released with interest @ of 6% p.a. to University.
- 10.4 Proposals can be individual/interdisciplinary/collaborative.
- 10.5 The project commencement would be considered from the date of disbursement of first instalment of grant amount.
- 10.6 A half yearly progress report would have to be submitted by Principal Investigator if it is demanded by IQAC.
- 10.7 The final report, statement of expenditure and utilization certificate (as per Annexure-IV) shall be submitted after successful completion of the project.
- 10.8 The part of the granted money remaining unutilized within the prescribed time limit should be refunded to University.
- 10.9 The Principal investigator has to give a presentation of the outcome of the research before a committee after the submission of the project.
- 10.10 The research project should not be outsourced in any case.
- 10.11 The proposal should be based on the applicant's own original ideas.
- 10.12 The faculty member will not get any relaxation in the teaching load or other academic as well as administrative duties if the proposal is accepted.
- 10.13 The students will neither gets any relaxation in any academic activities (attendance, assignments, projects, etc.) of the subjects nor gets relaxations in any examination
- 10.14 The principal investigator may publish a research paper out of this research and utilize the grant for paper publication charges. The research paper must be published in the Scopus, Web of Science, IEEE Indexed journals only.
- 10.15 The principal investigator may file a patent based on the outcome of this project and the grant may be used for this purpose.

- 10.16 It is advisable to get review the proposals from Internal/External senior researchers and get critical feedback for novelty, quality, relevance, ethical considerations, and impressive & formal presentation, before submission.
- 10.17 Acknowledgement of the source of funding must be included in all publications or presentations arising from the funds.
- 10.18 The PI at the time of submission of application under Seed Money Scheme, shall not have any running project under this scheme or any other scheme in which he/she is the PI.
- 10.19 Publication in peer-reviewed (Scopus, Web of Science, IEEE indexed) journals/intellectual property generation including product/process development would be expected as outcomes of the project.
- 10.20 It is understood that any IP emerging out of research funded by GTU will be owned by University. Such IPR will recognize contributions by all researchers as "inventors".
- 10.21 The proposal (in spiral-bound) should be submitted in two copies to the IQAC within specified time.
- 10.22 The soft copy of proposal should be mailed to **iqac@gtu.edu.in** (In word as well as in PDF format). The file must be saved by the name of PI only.
- 10.23 The PI should ensure that the proposals must be neatly presented and do not have any mistakes.
- 10.24 The PI may seek help of IPR cell for further support to enhance visibility of research findings by using institutional linkages, infrastructure, patent filings, copyright etc.
- 10.25 The Plagiarism Policy should be as per UGC (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations 2018 dated 31<sup>st</sup> July, 2018. Moreover, the plagiarism of the research report must be less than 10%. The PI has to attach the plagiarism certificate with the final research project.
- 10.26 The PI has to follow Research Report formatting specification as per Annexure-III.
- 10.27 These guidelines have been framed with a view to strengthen key information base related with execution of Research Projects under Seed Money

Scheme. The University has right to add/withdraw or modify the guidelines at any time.

10.28 In case of discrepancy in any of the terms and conditions of Seed Money Scheme, the interpretation of Chairman of IQAC would be final and it must be binding to all the stake holders of the Scheme.

For any Query in the guidelines, Faculty Members or Students may contact Internal Quality Assurance Cell (IQAC) of University at iqac@gtu.edu.in

**Coordinator/Director IQAC** 

# **Annexure - I: Research Proposal Format**

# GUJARAT TECHNOLOGICAL UNIVERSITY INTERNAL QUALITY ASSURANCE CELL

# APPLICATION FOR AVAILING GRANT FOR RESEARCH PROJECT UNDER SEED MONEY SCHEME (SMS)

# (A) General Details

Project Details:
Project title:
Key Words:
Broad Area:
Principal Investigator Details:
Name:
Designation:
Department:
School/Centre:
Residential Address:
Mobile No.:
E-mail ID:
Bank Details Principal Investigator: (Attach a copy of Cancel Cheque)
Account No.:
Name of Bank & Branch:
IFSC Code:

# 

# (B) Technical Details of Project

# Points to consider for detailed of Research Proposal

- 1. Neatly designed front-page with project title, name of Investigator(s), department, School, contact details.
- 2. Project Abstract in about 300 words (don't number this page)
- 3. Good and self-explanatory title on top of the first page, above introduction
- 4. Introduction 500 words

**Co-Investigator Details:** 

- 5. Survey of literature of the recent major works in your area of research covering both international and Indian 1500 words
- 6. Clear identification of research gaps (what is the necessity to research this problem?) 150 words
- 7. Scope and objectives of your study 200 words
- 8. Detailed framework/ methodology of the proposed work 300 words
- 9. What is innovative/unique about proposed research 150 words
- 10.Expected outcomes from the project 150 words
- 11.Relevance/Significance of proposed study for policy-making/ society/ academics / etc. 250 words
- 12.References using standard referencing style in the discipline of the research proposal
- 13. Proposed budget and Time-line of the project

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Phase-wise plan of action and detailing of month wise time schedule should be submit. Milestones may clearly be indicated.

# **Probable Output of the Project:**

Research outcomes in terms of publications in conferences and journals, Product design, patents, resource generation by way of Industrial Consultancy and/or Continuing Education Programs need to be clearly specified. Attempt may be made to quantify output in measurable parameters.

# **Bio-sketch of PI and CI**

Please attach a brief bio-sketch (Not more than 1000 words) highlighting Academic and Professional achievements. A list of publications during last one year should be included.

Investigator) hereby declare that the not submitted to any other funding	(Name of Principal e Research Proposal on the above topic is agency for grant. I also declare that, if the I will complete the work in the stipulated
Signature (PI)	Signature (CI)
Name:	Name:
Date:	Date:
Signature and Seal (Director): Date:	

# Annexure – II Project Submission Format < First Page/Title Page >

'<Title of Project>'

# A Minor Research Project under Seed Money Scheme (SMS) Sponsored Gujarat Technological University

# **Submitted by**

<Name of Principal Investigator> <Name of Co-Investigator>

<Designation> < Designation>

<Name of Department> <Name of Department>

<Name of PG School> <Name of PG School>



# **Gujarat Technological University**

<Month & Year>

# <Second Page>

# **Declaration by Principal Investigator**

(On separate page)

I hereby declare that the A Minor Research Project under Seed Money Scheme						
(SMS)	sponsored	by	GTU	titled	<i>u</i>	
						is my own
work and r	my indebtedr	ness to	other w	ork publi	cations, refere	nces, if any, have
been duly	acknowledge	ed. If I	am foun	d guilty o	f copying from	any other report
or publishe	ed informatio	on and	showing	g as my o	riginal work, I ı	understand that I
shall be liable and punishable by the university						
		:				
Date: Place:						
riace.						
Signature:						
		:				
Date: Place:						
Signature:						

# <Third Page>

A Copy of Project Sanction letter

<Forth Page>
Plagiarism Report

PREFACE (SEPARATE PAGE)

**ACKNOWLEDGEMENT (SEPARATE PAGE)** 

**INDEX (SEPARATE PAGE)** 

**FULL REPORT** 

### **Annexure - III FORMATTING SPECIFICATIONS FOR REPORT**

Word format

❖ Font size: 12 for Regular text, 14 for Subtitles and 16 for titles

❖ Font Type: Times New Roman

❖ Line Spacing: 1.5

Margin: 1.5 inch to Left and 1 inch to all other sides

❖ Page Type: A4

Alignment: Justified

Column Specification: One

Printing of Report: Both sides of paper

❖ Binding of Report: Hard Bound with Emboss of Title page

❖ The colour of Hard Bound Material must be as under:

Project from Engineering and Technology stream – Blue

Project from Pharmacy Stream – Green

Project from Management stream – Maroon

Project from Computer Application Stream – Brown

Project from Architecture Stream – Pink

- ❖ Number of hard Copies submitted to IQAC: One hard copy
- The WORD file may be converted to PDF format for softcopy submission and mailed to iqac@gtu.edu.in (In word as well as in PDF format). The file must be saved by the name of PI only.

# **Annexure – IV Statement of Expenditure / Utilization Certificate**

Name	Name of PI:							
Desig	nation & School/Centre/C	onstitute Instit	tute:					
Date	of Commencement of Pro	ject:						
Date	of Submission of Project: _							
Total Sanctioned Grant in INR: Total Utilized Grant in INR:								
Following bills were paid as a part of Research Project under Seed Money Scheme of GTU								
Sr. No	Name of Party/Agency	rty/Agency Bill No. & Details of Bill Bill of Date		Bill Amount	Total Payable Amount			
				Net Amount				
	ees in words							
This is to certify that, above mentioned bills noToare expensed for Research Project under Seed Money Scheme, G.T.U., which is as per time limit, normal market rate & approval. This bill amount had not been presented or assessed in past. The amount is paid as it is just & fair. It is submitted for approval.								
Co-Investigator Prince		Principa	l Investigator		Director			
CAO	CAO I/A				Registrar			
Hon'ble Vice Chancellor								
GTU/	'IQAC/SMS Policy				<b>18</b>   Page			





# **GUJARAT TECHNOLOGICAL UNIVERSITY**

# **Internal Quality Assurance Cell**

Nr.Visat Three Roads, Visat – Gandhinagar Highway,

Chandkheda, Ahmedabad – 382424 - Gujarat

 ${\bf E\ Mail:\ admin.iqac@gtu.edu.in\ |\ iqac@gtu.edu.in\ |}$ 

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