

# Handbook of Funding Opportunities for Research and Innovation



## Research Cell

Shivaji College  
NAAC Accredited `A` Grade  
(University of Delhi)  
New Delhi- 110027  
INDIA

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India

New Delhi, January 30, 2021

### **DISCLAIMER**

This handbook serves for information purposes only. It is based on public information, expert input, and desk research of Research Cell, Shivaji College. The purpose of the guide and information is to simplify access to the relevant information on various funding sources according to the needs of the potential beneficiary. Although we took great care that the information in this handbook is correct at the time of its publication, the information contained herein is subject to change. Readers of this handbook should also visit the concerned websites of the various funding agencies for updates and further information.

**PUBLISHER**  
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Shivaji College  
(University of Delhi)  
Ring Road, Raja Garden  
New Delhi-110027  
India

# Preface to Handbook

Research and Innovation is the need of the hour. On common parlance, it is opined that the future of the planet depends on research ethics and focus of the research must be centred to Sustainable Development Goals (SDGs). Research and innovation offer solution to overcome the great challenges that are faced by the world in general and India in particular. Various challenges and crisis such as disasters, water and energy security, global warming and climate change, environmental degradation, the exclusion of vulnerable groups and equity, social justice, global health threats, and demographic developments may be addressed more effectively by scientist, researchers and academicians if help & support is extended in the form of funding and research infrastructure support. This Handbook is designed to provide principal investigators guidance on regulations governing research grants and fellowships awarded by the various national and international research grant agencies. It also sets out the application procedures and eligibility requirements and outlines the funding and facilities available to grant-holders and research organisations.

Looking at the immense importance of research and development the present compilation entitled as “Handbook of Funding Opportunities for Research and Innovation” is the outcome of the cumulative effort of Research Cell, Shivaji College (University of Delhi). The idea of publishing the Handbook was put forward by the Research Cell after comprehensive discussion with committee members and looking at the need of such updated document which covers all aspects of funding resources in a book form. The primary objective of this Handbook is to provide the readers with the latest and updated information about the various funding resources and agencies. Although plenty of information is available on the various website, still this Handbook provides practical information to potential recipients of funding for research and innovation. This Handbook also provides decision-makers, researchers and faculty members with a picture of some of the funding opportunities available at Local, National and Global Level. The purpose of this Handbook is to come out

with the complexity of information in a simpler manner and to bring together the full range of research and innovation financing instruments. The Handbook also aims at providing research information about the initiative of Intramural Minor Research Grant of Shivaji College (University of Delhi), New Delhi, India on the various issues of research and training from a perspective of undergraduate students and faculty members.

The aim of this handbook is, therefore, to help potential applicants for funding for research and innovation to find their way to relevant information on funding opportunities to identify the most suitable choices among the relevant programmes. Looking at the wide range of information and activities that can be funded, the text of the handbook cannot itself answer every question. However, it will direct the reader straight to the relevant source of information. The Handbook is divided into 8 chapters covering all aspects of funding resources right from science and technology like Chapter 1, 2, 4 and 5 of the Handbook is entitled as ‘Funding Opportunities at Science & Engineering Research Board (SERB)’, Funding opportunities at Department of Science & Technology, Funding opportunities at Council of Scientific and Industrial Research (CSIR) and National Board of Higher Mathematics (NBHM) & Defence Research Development Organization (DRDO) deals with the detailed information on research funding and grant available for science and allied disciplines respectively. Chapter 3 and 6 precisely focus on University Grant Commission (UGC) and Indian Council of Social Science Research (ICSSR) grants including newly launched Impactful Policy Research in Social Science (IMPRESS) scheme and research programmes which mainly aim for social science and humanities disciplines. Chapter 7 deals with some funding opportunities and grants available with the Department of Biotechnology (DBT) for College and Universities. The information is also stapled with the website and other necessary details which are required at the time of applying for the grant. Finally, the last chapter is devoted to Research Grant initiative started by the College Research Cell, Shivaji College, which is unique and promotes research and innovation culture among students and faculty members.

Research Cell, Shivaji College

# Research Cell, Shivaji College

1. Dr Shiv Kumar Sahdev, Principal
2. Dr Rashmi Wardhan, IQAC Co-ordinator
3. Dr Kumari Priynaka, Convener
4. Dr Prabuddh Kumar Mishra
5. Dr Vikas Sharma
6. Dr Kiran Bamel
7. Dr Neetu Rani
8. Dr Devender S. Meena

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# **Chapter 1**

## **Funding Opportunities at Science & Engineering Research Board (SERB)**

### **1.1 Introduction**

Science & Engineering Research board (SERB) is a Statutory Body Established through an Act of Parliament: SERB Act 2008, Government of India. Its aim is to promote basic research in Science and Engineering and to provide financial assistance to persons engaged in such research, academic institutions, research and development laboratories, industrial concerns and other agencies for such research.

### **1.2 Funding Opportunities**

The funding opportunities are in the form of Schemes and Programmes and Awards Fellowships. The details of some of them are as follows:

#### **1.2.1 Core Research Grant**

Extramural Research (EMR) funding scheme of SERB to academic institution, research laboratories and other R & D organizations to carry out basic research in all frontier areas of Science and Engineering is in limelight for more than four decades since from the inception of SERC. This scheme encourages emerging and eminent scientist in field of science and engineering for individual centric competitive mode of funding. Since the scheme provides core research support to the

active researchers, the existing name Extramural Research (EMR) has been renamed as Core Research Grant (CRG).

**Objective:**

- The scheme provides core research support to active researchers to undertake research and development in frontier areas of Science and Engineering.

**Eligibility:**

- Applicants [Principal Investigator (PI) and Co-Principal Investigator(s) (Co-PI(s))] should be Indian citizens. Foreign nationals (including OCI and NRI) are also eligible to apply provided they fulfil the eligibility criteria notified by SERB (SERB Funding Guidelines for foreign nationals dated 27th October 2016).
- The applicant(s) must hold a regular academic/research position in a recognized academic institution or national laboratory or in any other recognized R & D institution in India.
- Private Academic institutions with valid UGC / AICTE / PCI approval, Private R & D Institutions with valid DSIR-SIRO recognition and Voluntary and Non-Governmental Organizations registered under NITI-AAYOG Darpan portal are eligible to host a project.
- Faculties recruited through UGC-Faculty Recharge Program are eligible to apply. INSPIRE Faculty, Ramanujan and Ramalingaswamy Fellows are also eligible to apply provided they have at least three and half years of tenure remaining at the time of submission of application.
- Investigators who will be superannuating during the duration of the project or already superannuated are also eligible to apply. In such cases, a Faculty/Scientist from the host institute who has at least 5 years of service remaining should be associated as a Co-PI. The host institution should allow the investigator to continue after superannuation and provide required support towards implementation of the project.
- The PI and Co-Investigator(s) should hold Ph.D. degree in Science, Mathematics, Engineering or M.D / M.S. / M.D.S. / M.Sc degree at the time of applying for grant.

- The term “Regular” in the context of CRG refers to the applicants who are appointed against the sanctioned post or in a tenure post, but are likely to be renewed after the end of the tenure.
- Note: [Research Associates, Ad-hoc faculties, Guest Faculty, Visiting Scientist, Consultant, Project Fellows and Faculty members whose contract is renewed every year are not eligible. In respect of cases that are not mentioned above , SERB reserves the right to determine the eligibility.]
- Aspirants of NPDF, SRG and CRG (EMR) can submit their proposal only once in a calendar year in any of these schemes.

### **Nature & Duration of Support:**

- The CRG scheme provides research support to an individual researcher or a group of researchers working in a recognized academic institution or national laboratory or in other recognized R & D institution in India.
- The funding is provided normally for a period of three years.
- The research grant is provided for equipment, manpower, consumables, travel and contingency. ”Overheads” is also be provided to the implementing institution as per prevailing norms of SERB.
- Proposals from applicants belonging to National Laboratories / Research Institutions should be in-line with the mandated research work of the lab/institution. (A certificate duly authorised by the Head of the Institution should be uploaded along with the proposal)
- National Laboratories and Research Institutions should share 50% of the non-recurring cost of the project. For projects with total cost more than Rs.80 lakh, 50% of the non-recurring and consumables cost should be shared by the Lab/Institution. If project is approved for SERB support, a certificate from National Laboratory / Research Institution will be required for the same.

### **Selection & Mode of Application:**

- An applicant is eligible to apply only one proposal during a call.

- Any proposal technically rejected should not be resubmitted without any substantial revision to any schemes or programs of the SERB.
- Not more than one project is allowed at any given time. However, projects under the programs Empowerment and Equity Opportunities for Excellence in Science (EMEQ), High Risk -High Reward (HRHR), Industry Relevant R & D (IRRD) and special calls are exempted from this category. The PI is encouraged to apply for another project six months prior to the completion of the project.
- The call for applications will be notified through the website "www.serbonline.in" and "www.serb.gov.in". The application form along with a proper research proposal highlighting the research work to be undertaken should be submitted online through the website "www.serbonline.in".
- The selection will be based on the recommendations of Program Advisory Committee (PAC) constituted by the Board. If required, the applicants may be called for discussion/ presentation.

### **Plagiarism:**

Proposals submitted must be original in ideation and content. Plagiarism in any form will not be acceptable. All submitted proposals would be subjected to a third-party similarity check and proposals are liable to be rejected if found plagiarised. Any text taken verbatim from other source needs to be identified using quotation marks and proper reference. Applicants are requested to pre-check their proposals for plagiarism before uploading. Proposals found containing plagiarised content will be rejected.

### **Scientific Social Responsibility:**

SERB has adopted Scientific Social Responsibility (SSR) Policy to imbibe a culture of social commitment among SERB Grantees. The policy intends to effectively utilize scientific infrastructure and expertise of SERB grantees to benefit other S&T stakeholders especially the less-endowed researchers and the society. SSR activities need to be chosen after approval and depending on the activities chosen additional budget would be provided under separate head to carry out the chosen activities. SERB Grantees need to undertake the proposed SSR activities during their project period.

### **How to apply online:**

For successful online submission of the application the following points may be noted:

- Applicant(s) should first register into the online website
- After log-in, applicant(s) are required to fill all the mandatory fields in Profile Detail section under User Profile which includes Bio-data, Photo, Institute Address etc.
- If you have Co-PI in your proposal then ensure that all the Co-PI's are also registered into the system following the same procedure.
- Some of the details of your proposal like Project title, Project summary, Keywords, Objectives of project, Expected output and outcome of the proposal, Budget (Manpower, Consumables, Travel, Equipment, Contingency, Overheads) have to be entered at the time of proposal submission.
- Other relevant information of the proposal has to be uploaded in single PDF file not more than 10 MB as other technical document (OTD).

### **Documents required (in PDF) should be in prescribed format:**

- Biodata (under user profile section)
- Certificate from Principal Investigator
- Endorsement Letter from the Head of Institution
- If project is approved for SERB support, the Quotations of the approved equipment need to be uploaded within one month of the date of the Approval Letter.

For more details visit [www.serbonline.in](http://www.serbonline.in)

## **1.2.2 Start-up Research Grant (SRG)**

### **Objective:**

The Start-up Research Grant (SRG) scheme aims to assist researchers to initiate their research career in a new institution. It is a two-year grant meant to enable researchers working in frontier areas of science and engineering to establish themselves and move on to the mainstream core research grant (CRG). Criteria for selection would be based on the track record of the applicant and the proposed research plan.

### **Nature & Duration of Support:**

- Research grant of Rs 30 lakh plus overheads for a period of two years.
- The research grant will cover equipment, manpower, consumables, travel and contingency apart from overheads. There is a standard cap for travel, contingency and overheads. Applicant has the flexibility to propose budget under various heads as per requirement.
- SRG would be a one-time career grant.
- Maximum number of grants awarded per year would be 500 across all subject areas.

### **Eligibility:**

- The applicant should be an Indian citizen. Foreign Nationals (including PIO, OCI) working as regular employee in any of the public funded and recognized R & D laboratories/institutions in India are eligible to apply as PI in collaboration with an Indian Co-PI, provided they fulfill the eligibility criteria notified by SERB (SERB Funding Guidelines for foreign nationals dt. 27th October, 2016).
- The applicant should hold Ph.D. degree in Science or Engineering or M.D. / M.S. / M.D.S. / M.Sc. degree.
- The applicant must hold a regular academic/research position in a recognized academic institution or national laboratories or any other recognized R & D institutions.

The term “Regular” refers to:

- (1) Those who are appointed by the institutions against the 'sanctioned' post. Such positions are regularized/confirmed after the probation period is over
  - (2) Those who are appointed in a tenure post, but are likely to be renewed after the end of the tenure.
- The applicant is eligible to apply within two years of joining the institution.
  - The upper age limit for SRG would be 42 years, with a relaxation of three years for SC/ST/OBC/ Physically challenged and women candidates.
  - INSPIRE Faculty, Ramanujan and Ramalingaswamy Fellows, Faculties recruited through UGC Faculty Recharge Program are not eligible under SRG.
  - Research Associates, Postdoctoral Fellows, Ad-hoc faculty, Guest faculty, Visiting Scientist, Consultant, Project Fellows and faculty members whose contract is renewed every year are not eligible under SRG. In respect of cases that are not mentioned above, SERB reserves the right to determine the eligibility.
  - Co-PI's are not allowed except in case of foreign nationals.
  - The applicant should not have received YSS, ECR, CRG (erstwhile EMR) or any other grant of SERB.

### **Mode of Application and Selection**

- Call for applications will be notified through the websites [www.serbonline.in](http://www.serbonline.in) and [www.serb.gov.in](http://www.serb.gov.in). The application should be submitted online at [www.serbonline.in](http://www.serbonline.in)
- Selection will be based on the recommendations of Expert Committee constituted by the Board.

### **Termination and Transfer of the Project**

- If any Principal Investigator (PI) wishes to terminate the project, they shall inform the SERB through the host institute immediately with proper justifications. The implementing institute should not incur any expenditure from the date of termination of the project or the date of resignation of PI. The institute must also arrange for submission of relevant documents.

- SERB reserves the right to terminate the project at any stage if it is convinced that (i) appropriate progress is not being made (ii) the grant has not been utilized properly (iii) furnishing of false information or suppression of factual information.
- Projects sanctioned under SRG cannot be transferred to any other person/s.
- Transfer of approved / sanctioned SRG project to another institution will be considered only in the following cases: (i) From private/public/government institution to any other public/government institution (ii) General administrative transfers in government or public funded institutions.
- Change of institute will not be considered in any other cases.

### **Plagiarism**

Proposals submitted need to be original and plagiarism in any form will not be acceptable. All submitted proposals would be subjected to a third party similarity check and proposals are liable to be rejected if found plagiarised. Any text taken verbatim from other source needs to be identified using quotation marks and proper reference. Applicants are requested to pre-check their proposals for plagiarism before uploading to avoid any serious repercussions at a later stage.

### **Scientific Social Responsibility**

SERB has adopted Scientific Social Responsibility (SSR) Policy to imbibe a culture of social commitment among SERB Grantees. The policy intends to effectively utilize scientific infrastructure and expertise of SERB grantees to benefit other ST stakeholders especially the less-endowed researchers and the society. SERB Grantees need to undertake some SSR activities during their project period. SSR activities need to be chosen after approval and depending on the activities chosen additional budget would be provided under separate head to carry out the chosen activities.

### **How to apply online:**

For online submission of the application the following points may be noted:

- Applicants should first register in SERB online portal
- After log-in, applicants are required to fill all the mandatory fields in Profile Detail section under User Profile, which includes Bio data, photo, Institute

Address, etc.

- Some of the details of proposal like Project Title (max 500 characters), Project summary (max 3000 characters), Keywords (max 6), Objectives of project (max 1500 characters), Expected output and outcome of the proposal (max 1500 characters), Budget (Manpower, Consumables, Travel, Equipment, Contingency, Overheads ) have to be entered at the time of proposal submission.
- Other relevant information of the proposal has to be uploaded as a single PDF file, not more than 10 MB, as technical document (TD)

### **Documents Required (in PDF format)**

- Biodata (under user profile section)
- Certificate from Principal Investigator
- Endorsement Letter from the Head of Institution
- Age Proof Certificate (Class X marksheet or Birth certificate)
- Category Certificate (in case of Age Relaxation)

**Contact:** For more details visit [www.serbonline.in](http://www.serbonline.in)

### **1.2.3 Mathematical Research Impact Centric Support**

Considering the overwhelming response for the fixed grant scheme MATRICS, devised for active researchers pursuing Mathematical Sciences and the demand from researchers belonging to other Theoretical Sciences, the Science and Engineering Research Board (SERB) has decided to extend the fixed grant scheme to other Theoretical Sciences including Quantitative Social Sciences.

#### **Objectives:**

To provide fixed grant support to active researchers with good credentials in Mathematical Sciences, Theoretical Sciences and Quantitative Social Sciences. The main attribute of this scheme would be submission of a simple 1-2 page mathematical/theoretical

proposal. The funding provided would cater to the specific needs of Mathematical/Theoretical Sciences research.

**Scope:**

- Mathematical Sciences (MS): Mathematical and allied areas
- Theoretical Sciences (TS): All areas of Science and Engineering (other than mathematical and allied areas)
- Quantitative Social Sciences (QSS): Quantitative Social Sciences which involves quantitative analysis using mathematical, statistical or computational techniques in the areas of Social Sciences

**Nature of Support:**

Research grant of Rs. 2 lakh p.a. for a period of three years.

**Purpose for which grants can be used:**

- Purchase of text books and monographs.
- Purchase of minor equipment such as workstation, laptop, etc.
- Purchase of software for research purposes.
- Travel support and payment of registration fee for invited talks or presenting a paper in national and international conferences.
- Travel support for collaborative visits in India and abroad.
- Travel support and other logistics for inviting students and young researchers for research activities.

(Total expenditure for International travel cannot exceed Rs 2,00,000 of the overall budget)

## **Eligibility:**

- The applicant should be an active researcher in the field of (i) Mathematical Sciences and allied areas; (ii) Science and Engineering (excluding mathematical sciences) or (iii) Social Sciences involving quantitative analysis using mathematical, statistical and computational techniques.
- The applicant should hold a Ph.D. or M.D./ M.S. / M.D.S./ M.Sc degree and must be working on regular basis in academic institutions/national labs or any other recognized R & D institutions. [The term “Regular” refers to: (1) Those who are appointed by the institutions against the ‘sanctioned’ post and are regularized/confirmed after the probation period is over (2) Those who are appointed in a tenure post, but are likely to be renewed after the end of the tenure].
- The applicant should have completed Ph.D. or M.D./ M.S. / M.D.S./ M.Sc degree atleast five years prior to the submission of proposal, in order to have gained individual experience.
- The applicant should have at least four years of service remaining before superannuation as on the date of submission of the proposal.

## **Restrictions:**

- An applicant is eligible to submit only one proposal during a call.
- PI’s who have received grant under MATRICS/CREST cannot apply under SERB International Travel Support Scheme during the project duration.
- Co-PI’s are not allowed in the scheme.

## **Mode of Application and Selection**

- The Call for proposals will be notified through the website [www.serbonline.in](http://www.serbonline.in) and [www.serb.gov.in](http://www.serb.gov.in). The proposal should be submitted online only.
- The proposal should be submitted online only at [www.serbonline.in](http://www.serbonline.in). The selection will be based on the recommendations of an Expert Committee and the criteria of consideration would be (1) credentials of PI (2) publications record and (3) mathematical/theroretical content of the proposal.

### **Review of Work Done:**

At the end of each year, the recipients should upload annual report including list of publications and details of talks given in conferences and collaborations that have been initiated.

### **Plagiarism :**

Proposals submitted need to be original and plagiarism in any form will not be acceptable. All submitted proposals would be subjected to a third party similarity check and proposals are liable to be rejected if found plagiarised. Any text taken verbatim from other source needs to be identified using quotation marks and proper reference. Applicants are requested to pre-check their proposals for plagiarism before uploading to avoid any serious repercussions at a later stage.

### **Scientific Social Responsibility :**

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### **How to apply online:**

For successful online submission of the proposal the following points may be noted:

- Applicant(s) should first register into the online website
- After log-in applicants are required to fill all the mandatory fields in Profile Details Section under User Profile which includes Bio data (as per defined template), Photo, Institute Address, etc.
- Some of the details required to be entered for proposal submission include Project Title (max 500 characters), Mathematics review subject classification in case of MATRICS, Keywords (max 6), Project summary (max 3000 characters), etc.

### **Documents required (in PDF) :**

- Biodata

- 1-2 page(s) project proposal
- List of ten most significant publications
- List of all publications in the last five years
- Certificate from Principal Investigator
- Endorsement Letter from the Head of Institution

For more details visit [www.serbonline.in](http://www.serbonline.in)

#### **1.2.4 IMPacting Research, INnovation and Technology IMPRINT - Round IIC (IMPRINT IIC)**

IMPacting Research, INnovation and Technology (IMPRINT) is a unique technology development initiative of the Government of India through the Ministry of Human Resource Development (MHRD) for translation of research knowledge into viable technology (products and processes). The maiden version of IMPRINT was launched in November 2015 by the Honorable President and Prime Minister of India. Encouraged by the widespread enthusiasm and utility, the next version, called IMPRINT II was launched as a joint effort of MHRD and Department of Science & Technology (DST) (steered by Science and Engineering Research Board, SERB) in April 2018. Like its preceding initiative, IMPRINT II (IMPRINT IIA/B) solicited innovative idea based translational project proposals promising prototype development and field trial in a given theme under the same 10 broad technology domains and selected only 125 most deserving from 2145 proposals submitted through a very rigorous multi-stage screening and peer reviewing process.

While projects under IMPRINT I and IMPRINT IIA/B certainly addressed a wide range of engineering challenges enumerated under 10 domains, it was felt that a fresh initiative was warranted to devote energy toward specific societal mission areas like pollution, waste utilization, potable water, cyber physical systems, alternative energy resources and some more which can make a huge difference to the lives of million in this country, if successful. In view of the above, MHRD and DST launched the next round of IMPRINT II, called IMPRINT IIC (Societal Mission Projects) in December, 2018 with an aim to seek proposals related to 20 very specific technology development themes of major societal relevance/benefit, selected from the proposals

sent by various partner ministries. The scope, mandate, timeline, eligibility, format and deliverables of IMPRINT IIC scheme are stated below.

It was further resolved that IMPRINT IIC would be implemented in two categories:

- (i) Regular (IMPRINT IIC.1) similar to IMPRINT IIA (two-stage review) aiming to translate knowledge into technology in the usual mode proposal submitted by a PI with his/her team from the same or partner institutions including industry with budget allocation limit within Rs 2 crore, and
- (ii) Consortium mode (IMPRINT IIC.2) (single-stage review) promising to develop an industry/community scale solution (a machine, reactor, process) that can be directly implemented in the field for demonstration and use. The consortium (multi-partner and multi-organization) should include the top researchers, industry and agencies to evolve the best possible solution in the chosen theme by pulling resources from all possible sources in the country and seek a budget of up to Rs 20 crore.

For more details visit [www.serbonline.in](http://www.serbonline.in)

### **1.2.5 Scientific and Useful Profound Research Advancement (SUPRA)**

SERB has developed a newly approved scheme that seeks to explore new scientific breakthroughs, with long-term impact on our fundamental scientific understanding, and offer disruptive technologies at the cutting edge. SERB-SUPRA (Scientific and Useful Profound Research Advancement) is a scheme beyond normal core grants and purposefully designed for high quality proposals consisting of new hypothesis or challenge existing ones, and provide 'out-of-box' solutions. Transformative and disruptive research concepts based on innovative and unproven hypothesis, possessing a high degree of uncertainty, yet having conviction to produce a lasting impact across discipline boundaries qualify for support under SERB-SUPRA.

Most important measures of this scheme are:

- Quantum of advances (incremental and short term gains are strongly discouraged).

- Extent of disruption in fundamental understanding or impact on outstanding research grand challenges: new areas, new concepts, new products, new disruptive technologies.
- Ability of research outcomes in enhancing scientific knowledge of the cutting-edge at the international level and/or emergence of critical technologies.
- Global impact, outstanding publications, advancement of science.

Submissions under SERB-SUPRA can only be made against call for proposals, with public announcement through SERB online portal and social media. Funding will be provided normally for a period of three years, which could be extended to 2 years (5 years total) as assessed by an expert committee. The research grant will encompass normal budget heads, apart from an overhead grant. It is envisaged that innovative SUPRA proposals will bring out breakthrough solutions in identified areas. Success of such proposals will ideally open up new opportunities in S & T and impact global science not only in terms of knowledge, but also in the form of delivered outcomes.

### **Eligibility**

- Applicants [Principal Investigator (PI) and/or Co-Principal Investigator(s) (Co-PI(s))] should be Indian citizens. Foreign nationals (including OCI and NRI) are also eligible to apply provided they fulfill the eligibility criteria notified by SERB (SERB Funding Guidelines for foreign nationals dated 27th October, 2016).
- The applicant(s) must hold a regular academic/research position in a recognized academic institution or national laboratory or in any other recognized R&D institution in India with at least 5 years of service remaining. The term "Regular" refers to the applicants who are appointed against the sanctioned post or in a tenure post, but are likely to be renewed after the end of the tenure.
- Private Academic institutions with valid UGC / AICTE / PCI approval, Private R&D Institutions with valid DSIR-SIRO recognition and Voluntary and Non-Governmental Organizations registered under NITI-AAYOG Darpan portal are eligible to host a project.

- Faculties recruited through UGC-Faculty Recharge Program are eligible to apply. INSPIRE Faculty, Ramanujan and Ramalingaswamy Fellows, Research Associates, Ad-hoc faculties, Guest Faculty, Visiting Scientist, consultant, Project Fellows and Faculty members whose contract is renewed every year are not eligible. In respect of cases that are not mentioned here, SERB reserves the right to determine the eligibility
- The PI and Co-Investigator(s) should hold Ph.D. degree in Science, Mathematics, Engineering or M.D / M.S. / M.D.S. / M.Sc degree at the time of applying for grant.

### **Nature & Duration of Support**

- The SUPRA scheme provides research support to an individual researcher or a group of researchers working in a recognized academic institution or national laboratory or in other recognized R & D institutions in India.
- Funding will be provided normally for a period of three years, which could be extended to 2 years (5 years total) subject to performance evaluation.
- The research grant is provided for equipment, manpower, consumables, travel and contingency. “Overheads” is also be provided to the implementing institution as per prevailing norms of SERB.

### **Selection & Mode of Application**

- A single submission of full SUPRA proposal will be subjected to a two-phase evaluation process.
- First phase: Initial screening will be based on assessment of extended synopsis as described in the application format and research track record of the Principal Investigator, as judged by her/his CV. Only those proposals which proceed through the first phase will be sent out for external review.
- Second phase: Full scientific proposal should meet the core mandate and features of SUPRA and it will be closely judged on these lines in the second step of the assessment process. High value proposals (> 1 crore) will mandatorily undergo international review.

Proposals qualifying after domain expert reviews will be subjected to formal presentation by PI / Co-PIs to PAC, co-opted members and special invitees (if any).

- An applicant is eligible to apply only one proposal during a call (as a PI or Co-PI).
- Any proposal technically rejected should not be resubmitted without any substantial revision to any schemes or programs of the SERB.
- Not more than one project is allowed at any given time as a Principal Investigator under the program SUPRA.
- The call for applications will be notified through the website “www.serbonline.in” and “www.serb.gov.in”. The application form along with a proper research proposal highlighting the research work to be undertaken should be submitted online through the website “www.serbonline.in”.
- The selection will be based on the recommendations of Program Advisory Committee (PAC) constituted by the Board. If required, the applicants maybe called for discussion/ presentation.

### **Plagiarism**

Proposals submitted must be original in ideation and content. Plagiarism in any form will not be acceptable. All submitted proposals might be subjected to a third-party similarity check and proposals are liable to be rejected if found plagiarised. Any text taken verbatim from other source needs to be identified using quotation marks and proper reference. Applicants are requested to pre-check their proposals for plagiarism before uploading.

### **Scientific Social Responsibility**

SERB has adopted Scientific Social Responsibility (SSR) Policy to imbibe a culture of social commitment among SERB Grantees. The policy intends to effectively utilize scientific infrastructure and expertise of SERB grantees to benefit other S & T stakeholders especially the less-endowed researchers and the society. SSR activities need to be chosen after approval and depending on the activities chosen additional budget would be provided under separate head to carry out the chosen activities.

SERB Grantees need to undertake the proposed SSR activities during their project period.

### **How to apply online**

For successful online submission of the application the following points may be noted:

- Applicant should first register into the online website.
- After successful registration, user will be sent a confirmation mail on registered emailID .User must click on the url provided in the mail to confirm registration.
- After log-in, applicant(s) are required to fill all the mandatory fields in Profile Detail section under User Profile, which includes Bio-data, Photo, Institute Address etc.
- If you have Co-PI in your proposal then ensure that all the Co-PI's are also registered into the system following the same procedure.
- Details of Patent, Publications in last 5 years, Projects, Research Collaboration, Academic Supervision of all investigators (PI and all Co-PI's) has to be provided
- Some of the details of your proposal like Project Title (max 500 characters), Project summary (max 3000 characters), Keywords (max 6), Objectives of project (max 1500 characters), Expected output and outcome of the proposal (max 1500 characters), Budget (Manpower, Consumables,Travel, Equipment, Contingency, Overheads ) have to be entered at the time of proposal submission.
- Other relevant information of the proposal has to be uploaded in single PDF file not more than 10 MB as other technical document (OTD).
- Documents required (in PDF) should be in prescribed format:
  - i. Biodata (under user profile section)
  - ii. Certificate from Principal Investigator

- iii. Endorsement Letter from the Head of Institution
- iv. If project is approved for SERB support, the Quotations of the approved equipment need to be uploaded within one month of the date of the Approval Letter.

### **1.2.6 Intensification of Research in High Priority Areas (IRHPA)**

The Intensification of Research in High Priority Areas (IRHPA) program of Science and Engineering Research Board (SERB) supports proposals in high priority areas where multidisciplinary / multi-institutional expertise is required which will put our nation in international science map in that particular discipline. The Scheme is designed to provide major support to a few selected areas of research that have high priority from the viewpoint of advances in fundamental science and that can be of great significance for scientific and technological development. SERB identifies the priority areas and makes a national call for seeking proposals. The necessary facilities required for implementing the identified high priority areas will be supported through this scheme.

The project will be set up around established research groups led by a Principal Investigator (PI) with at least two Co-PI's of complementary expertise from different departments / institutes to transform the program truly interdisciplinary and multi institutional. The duration of the project is normally for a period of 5 years.

For more details visit [www.serbonline.in](http://www.serbonline.in)

### **1.2.7 Empowerment and Equity Opportunities for Excellence in Science**

#### **Objective:**

The Empowerment and Equity Opportunities for Excellence in Science (EMEQ) scheme is aimed at providing research support to researchers belonging to the Scheduled Caste and Scheduled Tribe in undertaking research in frontier areas of science and engineering.

#### **Eligibility:**

- The applicant should be an Indian National.
- The applicant should be an active researcher belonging to the Scheduled Caste or Scheduled Tribe category working on regular basis in an academic institutions/national lab or any other recognized R & D institutions in the field of Science and Engineering.
- The applicant should hold Ph.D. degree in Science or Engineering or M.D. / M.S. / M.D.S. / M.Sc. degree.
- The applicant should have at least four years of service remaining before superannuation as on the date of submission of the proposal.
- Researchers/Scientists who have ongoing project under EMEQ scheme as on the date of submission of the proposal are not eligible to apply.
- Co-Investigators are not allowed in the scheme

#### **Nature of Support:**

- Funding is provided up to a maximum of Rs 50 lakh (excluding overhead charges).
- The research grant will cover equipment, manpower, consumables, travel and contingency. Overheads will be provided as per prevailing norms of SERB.
- Duration of the project shall be for a maximum of three years.

#### **Plagiarism:**

Proposals submitted need to be original and plagiarism in any form will not be acceptable. All submitted proposals would be subjected to a third-party similarity check and proposals are liable to be rejected if found plagiarised. Any text taken verbatim from other source needs to be identified using quotation marks and proper reference. Applicants are requested to pre-check their proposals for plagiarism before uploading to avoid any serious repercussions at a later stage.

#### **Scientific Social Responsibility:**

SERB has adopted Scientific Social Responsibility (SSR) Policy to imbibe a culture of social commitment among SERB Grantees. The policy intends to effectively utilize scientific infrastructure and expertise of SERB grantees to benefit other

S&T stakeholders especially the less-endowed researchers and the society. SERB Grantees need to undertake some SSR activities during their project period. SSR activities need to be chosen during submission process. Depending on the activities chosen additional budget would be provided under separate head to carry out the chosen activities.

### **Mode of Application and Selection:**

- The call for applications will be made once a year and will be notified through the websites [www.serbonline.in](http://www.serbonline.in) and [www.serb.gov.in](http://www.serb.gov.in). The project proposal should be prepared according to the guidelines and submitted online through the website [www.serbonline.in](http://www.serbonline.in)
- The selection will be based on the recommendations of a Task Force Committee that will be constituted by the Board. If desired by the Committee, the applicants may be called for personal discussion.

### **How to apply online:**

For online submission of the application the following points may be noted:

- Applicant(s) should first register into the online website
- After log-in, applicants are required to fill all the mandatory fields in Profile Detail section under User Profile, which includes Bio data, photo, Institute Address, etc.
- Some of the details of your proposal like Project Title (max 500 characters), Project summary (max 3000 characters), Keywords (max 6), Objectives of project (max 1500 characters), Expected output and outcome of the proposal (max 1500 characters), Budget (Manpower, Consumables, Travel, Equipment, Contingency, Overheads) have to be entered at the time of proposal submission.
- Other relevant information of the proposal has to be uploaded as a single PDF file, not more than 10 MB, as technical document (TD).

### **Documents Required (in PDF format)**

- Biodata (under User Profile section)

- Certificate from Principal Investigator
- Endorsement Letter from the Head of Institution
- Category Certificate

For more details visit [www.serbonline.in](http://www.serbonline.in)

**Note:** In addition to above schemes and programmes, some Awards and Fellowships are also available. For more details visit [www.serbonline.in](http://www.serbonline.in)

## Chapter 2

# Funding Opportunities at Department of Science & Technology (DST)

### 2.1 Introduction

Department of Science & Technology offers various programs and schemes to support research. Some of them are detailed in next section.

### 2.2 Women Scientist Scheme

Women are an important section of the workforce, more particularly in the science & technology (S & T) domain. However, a large number of well-qualified women get left out of the S & T activities due to various circumstances which are usually typical to the gender. The challenges faced by them are several but most often the “break in career” arises out of motherhood and family responsibilities. To address such issues, Department of Science and Technology (DST) launched “Women Scientists Scheme (WOS)” during 2002-03. This initiative primarily aimed at providing opportunities to women scientists and technologists between the age group of 27-57 years who had a break in their career but desired to return to mainstream.

#### **Category of Fellowships:**

Under this scheme, women scientists are being encouraged to pursue research in frontier areas of science and engineering, on problems of societal relevance and to take up S & T-based internship followed by self-employment. Following three

categories of fellowships, with research grants, are available for Indian citizen:

1. Women Scientist Scheme-A(WOS-A): Research in Basic/Applied Science
2. Women Scientist Scheme-B (WOS-B): ST interventions for Societal Benefit
3. Women Scientist Scheme-C (WOS-C): Internship in Intellectual Property Rights (IPRs) for the Self-Employment

**Eligibility:**

The scheme is meant to encourage women in S & T domain, preferably those having a break in career and not having regular employment, to explore possibility of re-entry into the profession.

**Qualifications:**

1. Minimum Post Graduate degree, equivalent to M.Sc. in Basic or Applied Sciences or B.Tech. or MBBS or other equivalent professional qualifications
2. M.Phil/M.Tech/M.Pharm/M.Sc or equivalent qualifications
3. Ph.D. in Basic or Applied Sciences, Age: The minimum age to apply in WOS-A & WOS-B is 27 years and maximum age is 57 years. Age relaxation of 5 years would be given to candidates belonging to SC/ST/OBC and physically challenged category. Attested copies of supporting documents in this regard must be enclosed.

**Support:**

This scheme will provide a research grant for a well-defined project proposal (under WOS-A and WOS-B) for a period of maximum three years. This grant will cover the fellowship of the applicant and cost of small equipments, contingencies, travel, consumables, etc. Institutional overhead charges will be extra. For details visit <https://www.dst.gov.in>

**Women Scientist Scheme-A (WOS-A):**

Women Scientists Scheme-A (WOS-A) provides platform to women scientists and technologists for pursuing research in basic or applied sciences in frontier areas of science and engineering. The scheme plays pivotal role in gender mainstreaming as it not only prevents brain drain from S & T system but also train and retain women in the system. The scheme initially offers opportunity to work as bench-level scientists

and ultimately open new avenues for permanent position in Science & Technology.

### **Scientific Disciplines:**

The support available in 5 disciplines under WOS-A namely, i) Physical & Mathematical Sciences (PMS), ii) Chemical Sciences (CS), iii) Life Sciences (LS), iv) Earth & Atmospheric Sciences (EAS), and v) Engineering Technology (ET)

The Scheme is open throughout the year.

### **Women Scientist Scheme-B (WOS-B):**

Women Scientist Scheme-B (WOS-B) focuses on projects related to Science & Technology (S & T) interventions for societal benefit. Such project proposal should address a well-identified societal challenge and deliver possible solution(s) by way of development of viable technology/technique and/or lab-to-land technology transfer, its adaptation and scaling up. Women scientists who wish to apply under this scheme are required to develop their own project/proposals for scientific and technological solutions to address issues preferably at enhance quality-of-life the grassroots level. The proposal must clearly bring out the societal benefit to be accrued through well conceived plan for development of technology/technique and/or adaptation/customization. The candidate should have adequate S & T skills and be adept at techniques to deliver the proposed outcome. Projects which have the potential for sustainable income generation, lead to appreciable reduction in drudgery and enhancement of quality-of-life besides capacity building of women at the grassroots level are encouraged.

### **Procedure for Applying:**

Proposals are to be submitted online on WOS portal <http://online-wosa.gov.in> Those interested in submitting proposal have to register at this portal and submit the proposal online. For further inquiries regarding WOS-B please send email to: [wosb-dst\[at\]gov\[dot\]in](mailto:wosb-dst[at]gov[dot]in)

### **Women Scientist Scheme-C (WOS-C):**

Women Scientist Scheme-C (WOS-C) is being implemented by the Patent Facilitating Centre of Technology Information Forecasting & Assessment Council (TIFAC). The scheme aims to train women having qualifications in science/engineering/medicine or allied areas in the field of Intellectual Property Rights (IPRs) and their man-

agement for a period of one year in order to develop a pool of women scientists geared to creating, protecting and managing intellectual property in India. Hands-on training on different aspects of IPRs (e.g. patent search, know-how, drafting, filing, trademarks, trade secrets, copyright etc.) is major part of WOS-C curriculum in association with various Knowledge Partners (i.e. Law firms, Knowledge Processing Organizations (KPOs), Companies, Government agencies, and so on).

### **Eligibility Criteria:**

(1) Women in permanent position are not eligible to apply (2) Age: Minimum 27 years; Maximum 45 years as on 01-01-2018 (3) Minimum essential qualification: Master of Science; Bachelors in Engineering/Technology or equivalent. (4) Desirable qualification: Proficient in handling computerized database, collection, collation, analysis and report preparation.

## **2.3 Mobility Scheme**

### **(Addressing relocation issue of Women Scientists)**

In the year 2014, Department has restructured all the women specific programmes under one umbrella known as KIRAN (Knowledge Involvement in Research Advancement through Nurturing). KIRAN is addressing various issues related with women scientists (e.g. unemployment, relocation etc.) and aimed to provide opportunities in research (WOS-A), technology development/demonstration (WOS-B), and self-employment (WOS-C) etc. KIRAN is also actively involved in taking proactive measures, under the name CURIE (Consolidation of University Research for Innovation and Excellence in Women Universities) to develop state-of-the-art infrastructure in women universities in order to attract, train and retain promising girls students in S & T domain.

In continuation of this, another landmark programme, named as, Mobility Scheme has been just launched under KIRAN which will address relocation issue of women scientists working in regular position in Government Organizations. The Mobility Scheme is aimed to provide an opportunity to women scientists who are facing difficulties in their present job due to relocation (marriage, transfer of husband to any other location within the country, attending ailing parents, and accompanying children studying in different city) and will act as filler while searching other career option at new place. The initiative intends to provide a harmonious environment

during early phases of women scientists where they would like to stay active in research in addition to attending and fulfilling other responsibilities in the domestic front. It offers a contractual research award to women scientists and enables them for independent research.

## **2.4 Indo-U.S. Fellowship for Women in STEMM**

To provide opportunities to Indian Women Scientists, Engineers & Technologists to undertake international collaborative research in premier institutions in U.S.A, to enhance their research capacities and capabilities, Department announces **Indo-U.S. Fellowship for Women in STEMM** (*Science, Technology, Engineering, Mathematics and Medicine*) jointly with Indo-U.S. Science and Technology Forum (IUSSTF).

## Chapter 3

# Funding Opportunities at University Grants Commission (UGC)

### 3.1 Major Research Project Scheme

**Objective:**

To promote excellence in research in higher education by supporting research programme of University and College teachers in various disciplines.

**Eligibility/Target Group:**

The University Grants Commission will provide support to permanent/regular working/retired teachers in the Universities and Colleges (Under Section 2(f) and 12 B of UGC Act, 1956) only. The permanent teachers working in self financing Institutions [Self financing colleges subject to fulfillment of conditions stipulated in the UGC (Fitness of Institution for grant Rules, 1975) and subject to the condition that fees charged by such colleges are in accordance with the State/University fee regulations or as laid down by any law in force also eligible to apply under the scheme. A teacher, working or retired can avail only one project/ scheme of the UGC at any given time. The one, which is offered and accepted first irrespective of Principal Investigator/Co-Investigator, must be completed before the other offer is accepted.

**Nature of Assistance:**

The quantum of assistance for a research project will be as under: Major Research Project in Sciences including Engineering & Technology, Medical, Pharmacy

Agriculture etc. - Rs 20.00 lakhs. Major Research Project in Humanities, Social Science, Languages, Literature, Arts, Law and Allied disciplines - Rs 15.00 lakhs. The Commission will provide financial support for the items like Equipment, Books and Journals, Project Fellow, Hiring Services, Contingency, Chemicals and Consumables, Travel and fieldwork. For more details visit [www.ugc.ac.in](http://www.ugc.ac.in)

## 3.2 The Start-up Research Grant

**These grants are available only to the faculties of Basic Sciences, including Medical and Engineering Sciences, of the Universities, which are eligible to receive developmental grants from UGC.**

The following criteria must be complied with strictly:

1. The applicant is an Assistant Professor who has been appointed against a permanent vacancy following due procedure of the University.
2. The applicant is a Ph.D. with a minimum of five research publications in reputed journals (as determined by the impact factor of the journals and their inclusion in international databases like Scopus, SciFinder and Web of Science).
3. The application is submitted within a period of one year from the date of joining the University.

### **Instructions for Start-up Grant**

The application form has five different sections, (1) to (5).

1. **Personal Details:** In this section, you will be asked to provide some of your personal information. In addition, a second email-id (different from the one used for login) and your mobile number are to be provided.
2. **Professional Details:** In this section, you will be required to furnish detailed information on your career, specifically you have to provide
  - a. Date of joining this University as Assistant Professor
  - b. Details of doctoral degree (year of award, title of thesis)

- c. Post- doctoral experience
  - d. Publication details: You will be asked to upload a PDF file of your complete list of publications giving for each paper: title, names of all authors, journal, year, volume, page number and impact factor of the journal in a specified format. Only PDF file adhering strictly to the given format is acceptable.
3. **Grant-Related Information:** You will be asked to upload a PDF file of your research proposal (should not exceed 5-6 pages and file size restricted to 5 MB) giving
- a. Title of the Project
  - b. Introduction (this should contain the origin of the problem, a brief review of research & development in the field, national and international status, and significance of the study)
  - c. Objectives
  - d. Methodology
  - e. Year-wise plan of work and targets to be achieved
  - f. Details of collaboration, if any intended
  - g. Planned break-up of the utilization of the grant(under the following heads-Minor Equipment, Consumables, Contingency, Field work, Travel)
  - h. Any other information that you may like to give in support of this proposal that may help evaluation of the application.
4. **Declaration by the candidate:** Here, you will be asked to authenticate a few statements.
5. **Endorsement of the University:** You will be asked to upload a certificate (in the form of a PDF file in a given format endorsed by both the Head of the Department AND Head of the University. Note that certificates not adhering to the given format will not be accepted.

After filling the form, please click the Preview button to view your application in the form of a PDF file. If you want to change any data you entered, kindly

go back and make the changes or otherwise, click the Submit button. After you click this button your application will be immediately sent to the National Coordinator of the Programme, with a copy sent to your login email address.

If you encounter any problem in submitting your application, please contact the National Coordinator.

### 3.3 Mid-Career Award

The following criteria must be complied with strictly:

- (a) The applicant has successfully supervised the Ph.D. dissertation of 10 full-time candidates, 3 of whom are graduated during the preceding 5 years.
- (b) The applicant has successfully completed at least 5 sponsored research projects funded by national/international government or private agencies.
- (c) The cumulative impact factor of the published papers by the applicant should be 30 (according to the Journal Citation Reports of Thomson Reuters).
- (d) The applicant has a minimum 3 years of service left in the University from the date of submission of his/her application.

The application form has five different sections, (1) to (5).

1. **Personal Details:** In this section, you will be asked to provide some of your personal information. In addition, a second email-id (different from the one used for login) and your mobile number are to be provided.
2. (a) **Professional Details:** In this section, you will be required to furnish detailed information on your career, specifically you have to provide
  - Date of superannuation (as per your University norm)
  - Awards/ Honors received
  - Publication details: You will be asked to upload a PDF file of your complete list of publications giving for each paper: title, names of

all authors, journal, year, volume, page number and impact factor of the journal in a specified format. Only PDF file adhering strictly to the given format is acceptable.

**(b) Additional Professional Details:** You will be asked to provide information on completed/ongoing research projects at least five giving

- Project title
- Duration (start year and end year)
- Funding agency
- Quantum of funds sanctioned
- Name of the Principle Investigator
- Name of the Co-investigator You will be also asked to provide information on the Ph.D degrees awarded under your direct supervision (a minimum of 10 completed Ph.Ds) and the currently working students giving
- Name of student
- Year of admission
- Year of award
- Title of thesis
- Number of papers with the particular student
- Co-guide/Co-supervisor/joint guide/joint supervisor

3. **Grant-Related Information:** You will be asked to upload a PDF file of the research proposal giving the title of the project, one-page research plan and break-up for the utilization of the grant under different heads.

4. **Declaration by the candidate:** You will be asked to authenticate a few statements.

5. **Endorsement of the University:** You will be asked to upload a certificate (in the form of a PDF file in a given format endorsed by both the Head of the Department and Head of the University. Note that certificates not adhering to the given format will not be accepted.

After filling the form, please click the Preview button to view your application in the form of a PDF file. If you want to change any data

you entered, kindly go back and make the changes or otherwise, click the Submit button. After you click this button your application will be immediately sent to the National Coordinator of the Programme, with a copy sent to your login email address.

If you encounter any problem in submitting your application, please contact the National Coordinator.

### 3.4 UGC-BSR Faculty Fellowship

The following criteria must be complied with strictly:

1. The applicant has successfully supervised the Ph.D. dissertation of 15 (in basic sciences) or 10 (in engineering and technology) full time candidates, 5 of whom are graduated during the last 10 years.
2. The cumulative impact factor of the published papers by the applicant should be 50 (according to the Journal Citation Reports of Thomson Reuters).
3. The applicant must have handled, as Principal Investigator, at least 3 sponsored research projects funded by national/international agencies, in the last 10 years.
4. The application must be submitted within the one year period prior to the date of superannuation of the applicant in the University.
5. The University must certify that the applicant will be provided required laboratory infrastructure, administrative assistance and at least 2 Ph.D. candidates (with Fellowship) to work under the applicant.

The application form has five different sections, (1) to (5).

1. **Personal Details:** In this section, you will be asked to provide some of your personal information. In addition, a second email-id (different from the one used for login) and your mobile number are to be provided.
2. (a) **Professional Details:** In this section, you will be required to furnish detailed information on your career, specifically you have to provide
  - Date of superannuation (as per your University norm)

- Awards/ Honors received
  - **Publication details:** You will be asked to upload a PDF file of your complete list of publications giving for each paper: title, names of all authors, journal, year, volume, page number and impact factor of the journal in a specified format. Only PDF file adhering strictly to the given format is acceptable.
  - (b) **Additional Professional Details:** You will be asked to provide information on completed/ongoing research projects at least five giving
    - Project title
    - Duration (start year and end year)
    - Funding agency
    - Quantum of funds sanctioned
    - Name of the Principle Investigator
    - Name of the Co-investigator You will be also asked to provide information on the Ph.D degrees awarded under your direct supervision (a minimum of 15 completed Ph.D's) and the currently working students giving
      - Name of student
      - Year of admission
      - Year of award
      - Title of thesis
      - No. of papers with the particular student
      - Co-guide/co-supervisor/joint guide/joint supervisor
3. **Grant-Related Information:** You will be asked to upload a PDF file of the research proposal giving the title of the project, one-page research plan and break-up for the utilization of the grant under different heads.
  4. **Declaration by the candidate:** Here, you will be asked to authenticate a few statements.
  5. **Endorsement of the University:** You will be asked to upload a certificate (in the form of a PDF file in a prescribed format endorsed by both the Head of the Department and Head of the University. Note that certificates not adhering to the given format will not be accepted.

After filling the form, please click the Preview button to view your application in the form of a PDF file. If you want to change any data you entered, kindly go back and make the changes or otherwise, click the Submit button. After you click this button your application will be immediately sent to the National Coordinator of the Programme, with a copy sent to your login email address.

For more details visit [www.ugc.ac.in](http://www.ugc.ac.in)

## **Chapter 4**

# **Funding Opportunities at Council of Scientific and Engineering Research (CSIR)**

### **4.1 General Introduction**

- 4.1.1 The Council of Scientific & Industrial Research (CSIR) provides financial assistance to promote research work in the fields of Science & Technology, including Agriculture, Engineering and Medicine. The assistance is provided by way of grants to Professors/Experts in regular employment, in the universities, IITs, post-graduate institutions, recognised R & D laboratories both in public and private sectors. Research proposals of applied nature as well as those falling under basic sciences which attempt to solve specific problems being pursued by CSIR laboratories, or in newer and complementary fields, are considered for CSIR support. Priority is given to multi disciplinary projects which involve interorganisational co-operation (including that of CSIR laboratories). Preference is given to schemes which have relevance to research programmes of CSIR laboratories .
- 4.1.2 Investigators working in Government Research Laboratories/, Establishments are generally, not eligible for the grant.

- 4.1.3 A time bound research proposal clear and specific in the objective(s) making use of or proposing a new idea and realistic and reasonable in the means needed to execute it has a good chance of receiving CSIR support. The CSIR provides essential financial inputs for viable research schemes so as to obtain definite advancements in specific fields and areas.
- 4.1.4 Research grants of CSIR are intended mainly to supplement the research facilities available with the sponsoring institutions. Funds provided are for one or more Junior Research Fellows (JRF), Senior Research Fellows (SRF) and Research Associates (RA), contingencies and equipment usually the amounts sanctioned for equipment are small. No graded posts are sanctioned nor are funds provided for other kinds of expenditure. EMR schemes are not intended to support establishment (de novo) of specialized facilities, centres or divisions. These schemes are intended to supplement, on-going R & D efforts in institutions/laboratories/departments, etc. where basic infrastructure exists.
- 4.1.5 Depending on the magnitude and nature of research involved a research, scheme may have more than one investigator and, in such a case, the first investigator shall be known as “Principal Investigator” (PI). In the event of a collaborative project involving two or more institutions, the consent of each such institution must be furnished with the proposal. Collaborative projects involving CSIR laboratories are encouraged.
- 4.1.6 The PI’s may submit their proposals directly to the Head, Human Resource Development Group (HRDG) of CSIR.
- 4.1.7 CSIR has discipline-wise research committees to consider the research proposals falling in their respective fields and make recommendations to the Governing Body of CSIR for financial assistance. The research committees usually meet twice a year and recommend grants for viable research schemes received for financial assistance and review the progress of ongoing schemes for their continuation.
- 4.1.8 The Directors of CSIR laboratories may invite applications for research grants in specific areas of interest to their respective laboratories. They will forward these to the CSIR HRD Group.
- 4.1.9 Schemes in which collaboration has been indicated between industries

and CSIR laboratories or between, universities and CSIR laboratories or among industries, universities and CSIR laboratories, will receive support on priority basis on the approval of DGSIR.

## **4.2 Procedure for Applying**

- 4.2.1 Applications for research grants can be submitted at any time during the year. The research proposal should be submitted in the prescribed proforma (Form-C & Form-CI, available at [www.csir.res.in](http://www.csir.res.in)) The application should be forwarded, through the Head of the concerned institution duly certified that (i) the core facilities are available and will be provided to the investigator(s) to work on the proposed scheme, and (ii) the department/Institute will discharge all its obligations, particularly in respect of management of the grants given.
- 4.2.2 The research proposals on receipt in CSIR are sent to referees (from a panel drawn by Human Resource Development Group (HRDG/CSIR) and CSIR laboratories in which work related/analogous to the proposal is in progress, for their evaluation. These are then considered by the concerned area research committees.

## **4.3 Tenure**

The tenure of a scheme is 3 years or less as asked for by the investigator. Extension beyond 3 years may be considered in a few deserving cases depending on the progress and need of the project; extension is granted rarely. The period of extension will be limited to a maximum of two years. The PI may make a request for extension in time, preferably in his renewal application for third year, giving detailed justification and period for which extension is required. A detailed report of scientific achievements under the scheme since its inception must invariably be sent alongwith the request for extension. The PI should also state clearly that a second extension is not contemplated at all.

For more details visit [www.csir.res.in](http://www.csir.res.in)

## **Chapter 5**

# **Funding Opportunities at NBHM and DRDO**

### **5.1 National Board of Higher Mathematics (NBHM)**

It provides financial assistance to research projects. NBHM usually meets twice a year, to discuss its programmes and various proposals received from its board members as well as from mathematicians all over the country. It has sub-committee called the Research Programmes Committee to look after research projects for funding. They consider proposals, throughout the year, for financial support for varied mathematical activities, from institutions and individuals. Decisions of NBHM are based on the recommendations of the Research Program Committee. NBHM normally provides financial support only to Indian nationals and institutions.

For more details visit [www.nbhm.dae.gov.in](http://www.nbhm.dae.gov.in)

### **5.2 Defence Research and Development Organization (DRDO)**

#### **5.2.1 Life Science Research Board**

The Life Sciences Research Board (LSRB) of Defence Research & Development Organisation (DRDO) was set up to support and strengthen

research base in the area of life sciences through projects under Grant-in-Aid Scheme to meet the national needs of Defence Services. The scheme is coordinated through five specialist panels:-

- Life Support & Biomedical Devices (LSBD)
- Soldier Health & Drug Development (SH & DD)
- Physiology of Extreme Environment & Behavioural Sciences (PEE & BS)
- Biotechnology and Bioremediation (BTB)
- Food Science, Hill Agriculture, Bio-fuels & Bio resources (FSH & ABB)

### **Who may Submit Project**

Grants are offered to IITs, universities, colleges, departments, laboratories approved research Institutes, eminent scientists working in reputed R & D Organizations / Institutes with well-established R & D facilities, Government and non-Government sector etc.

### **Where / Whom to Submit:**

**Member Secretary, LSRB**

**Defence Research & Development Organisation**

Ministry of Defence

Room No. 399, 3rd Floor, DRDO HQrs,

DRDO Bhawan, Rajaji Marg, New Delhi-110011

Phone : 011-23007894

Fax : 011-23012652

Email ID : [lsrb\[at\]hqr\[dot\]drdo\[dot\]in](mailto:lsrb[at]hqr[dot]drdo[dot]in)

For details visit: [drdo.gov.in](http://drdo.gov.in)

# Chapter 6

## Funding Opportunities at Indian Council of Social Science Research (ICSSR)

### 6.1 Introduction

Fund and promote Social Science Research in Universities/Colleges/Research Institutes through:

- (i) Ph.D., Post Doctoral, Senior & National Fellowships to researchers & faculties
- (ii) Minor, Major & Collaborative Research Projects to faculties
- (iii) International collaboration with foreign countries and providing Indian scholars travel grant for paper presentation, data collection and CEP abroad
- (iv) Seminars and conferences to disseminate social science research findings
- (v) Training and capacity building program for young researchers and faculties
- (vi) Publication of Journals/books & strengthening professional social science associations/organizations
- (vii) Library, documentation, data and online services for social science research

## 6.2 Coverage

UGC recognized Universities/Colleges, Research Institutions, ICSSR Research/ Recognized Institutions, Registered Subject Associations & Independent Scholars

## 6.3 Funding Opportunities

- ▶ IMPRESS Scheme
- ▶ Other Funding Opportunities
  - ◇ Research Fellowships
  - ◇ International Travel Grant
  - ◇ Conferences & Seminars
  - ◇ Training & Capacity Building
  - ◇ Publication Grant

## 6.4 Impactful Policy Research in Social Sciences (IMPRESS)

Impactful Policy Research in Social Science (IMPRESS) aims to encourage social science research in policy relevant areas so as to provide vital inputs in policy-formulation, implementation and evaluation. The IMPRESS is an initiative of the Ministry of Human Resource Development, Government of India and is being implemented by the Indian Council of Social Science Research. The basic idea to encourage policy research in social sciences is to have visible impact on polity, economy, society, culture, media, governance, health, environment, technology, law etc. It also aims to have enhanced coordination between academics and policy makers. **ICSSR is the implementing agency of the IMPRESS Scheme that aims to encourage studies with outcomes that focus on solutions to socially relevant issues. There are eleven domains and many sub domains.**

The identified domains under IMPRESS are as:

1. State and Democracy
2. Urban Transformation
3. Media, Culture and Society
4. Employment Skills and Rural Transformation
5. Governance, Innovation and Public Policy
6. Growth, Macro Trade and Economic Policy
7. Agriculture and Rural Development
8. Health and Environment
9. Science and Education
10. Social Media and Technology
11. Politics, Law and Economics

### **Eligibility**

- ▶ Government funded institutions including Universities (central and state), private institutions with UGC 12(b) status and ICSSR funded Research and Recognized Institutions
- ▶ Project Director, regular employee with Ph.D. and high quality publications. Co- Director(s) to have proven research interest
- ▶ Retired faculties, retired senior government officials/defence personnel having proven research interests may also apply under the scheme

### **How to Apply**

- ▶ Applications through advertisements in IMPRESS & ICSSR websites and leading Newspapers
- ▶ Only online application: Section A Applicant Profile, Section B Project Profile consisting of Abstract, detail Research Proposal, Project Director/ Co-Director(s) CV and budget

## **Duration and Value**

- ▶ six months to two years
- ▶ 1500 Projects in four calls – one in 2018 (ended in November, 18 with 2482 applications), two in 2019 and one in 2020 at an average budget of Rs.25 lakh

For more details visit <https://icssr.org/impress>

## **6.5 Research Projects**

Promotion of Research in Social Sciences is one of the major activities of ICSSR. Research grants is direct financial support to research projects taken up by social scientists in addition to their normal duties in an honorary capacity. ICSSR provides grants to scholars to conduct research in various fields of social sciences which have a theoretical, conceptual, and methodological or policy orientation on the subject of their choice. The research projects may belong to any of the prescribed social science disciplines or may be interdisciplinary in nature. The specific objectives of the programme are:

- a) to support high quality independent programme of research;
- b) to provide opportunities for training of future researchers;
- c) to contribute to the development of elaboration of new theoretical or methodological approaches to research;
- d) to maintain and sustain varies disciplinary research activities;
- e) to foster and promote collaborative, multidisciplinary research activities among researchers in the social sciences; and
- f) to facilitate communication of research outputs both within and beyond the academic community as well as to provide inputs to administrators and policy makers.

Two categories of Research projects: First, Major and Minor Research Projects and secondly Research Programmes, formerly known as Research Projects Responsive and Research Projects Sponsored respectively. As per the guidelines proposals are invited, scrutinized, processed and awarded every year.

## **6.5.1 General Guidelines for Research Projects and Programmes**

### **6.5.1.1 Objective**

Promotion of Social Science research is one of the major objectives of the ICSSR. Research grant is a direct financial support to research projects undertaken by the Indian social scientists. ICSSR provides funding to Indian scholars to conduct cutting edge research in various fields of Social Sciences that have theoretical, conceptual, and methodological and policy implications. The Research Projects may belong to any of the Social Science disciplines or may be multi-disciplinary in nature. The broad disciplines of study, within the domain of Social Sciences, are:

- (i) Sociology and Social Anthropology;
- (ii) Political Science / Public Administration;
- (iii) Economics;
- (iv) International Studies;
- (v) Social Geography and Population Studies;
- (vi) Commerce and Management;
- (vii) Social Psychology;
- (viii) Education;
- (ix) Social Linguistics / Socio-Cultural Studies
- (x) Law / International Law
- (xi) National Security & Strategic Studies;
- (xii) Other allied Social Science disciplines (Library Science, Social Work, Media Studies, Modern Social History, Health Studies, Gender Studies and Environmental Studies, Diaspora Studies, Area Studies,

Sanskrit-Society & Culture, etc.) to promote interdisciplinary and multidisciplinary research.

6.5.1.2 Research Programmes are a series of research studies undertaken simultaneously or sequentially on themes of significance and priority in Social Sciences. These studies identified by the ICSSR from time to time, are expected to be inter-disciplinary and multi-disciplinary in nature for critical understanding of Social Science research and develop deeper understanding in terms of theory, methodology and policy outcome. However, high impact studies which are broad in character but fall within the ambit of a single discipline may also be considered.

6.5.1.3 Categories of Research Projects: The ICSSR awards two categories of research projects on the basis of the scope, duration of the study and budget:

- (a) Research Programme- Duration from 12 to 24 months with a budget from Rs 15 lakh to 50 lakh
- (b) Major & Minor Project Duration upto 24 months for Major with a budget from Rs 5 lakh to 15 lakh and 6-12 months for Minor with a budget upto Rs 5 lakh.

## **6.6 Eligibility**

6.6.1 All Government funded institutions including universities (central and state), private institutions with UGC 12(b) status, ICSSR Research Institutes and Research Organisations specialising in some area are eligible to apply. In case of selection of such Research Organisations, they are required to be affiliated to ICSSR Regional Centres/ICSSR Research Institutes.

6.6.2 The Project Director should be a regular employee, possessing Ph.D. degree and have an interest in high quality research which may be evident by past studies, publications and academic background. In case the project has Co- Director(s), they should have proven research record.

- 6.6.3 Retired faculties with proven research record can also apply under the scheme but they would be required to get themselves affiliated to any of the research institutions mentioned in clause 2.1.
- 6.6.4 Individual scholars can apply maximum of two projects at a time. However, in case both projects are selected, the applicant can choose only one project. Institutes having good research infrastructure and resources may affiliate a number of Project Directors.
- 6.6.5 Senior government and defence officers (not less than 25 years of regular service) and persons with proven Social Science expertise possessing a Ph.D. degree or equivalent research work in any social science disciplines and demonstrable research experience through publications of books/research papers/reports can also apply.

## 6.7 How to Apply

- (1) Applications will be invited through an advertisement on ICSSR website.
- (2) After completion of application in MS Word file, email the file to [rpcssr@gmail.com](mailto:rpcssr@gmail.com)
- (3) A hard copy of the same, along with all enclosures, must be sent to: **Incharge, RP Division, Indian Council of Social Science Research, ArunaAsaf Ali Marg, New Delhi- 110067** before the last date of such submission duly signed and stamped by the affiliating institution.
- (4) The Applicants are required to submit an Abstract & a detailed Research Proposal in the given format (available at [www.icssr.org](http://www.icssr.org)) including details of the Project Director and Co-Director(s) and the budget.
- (5) Research proposals and final reports should either be in English or Hindi.

## **6.8 Procedure for Award**

- (1) Applications would be initially scrutinised by the ICSSR secretariat for their completeness.
- (2) All the eligible applications will then be sent for blind peer review. In case there are any suggestions for improvement, the same would be sent to the scholar(s) before presentation.
- (3) All the short-listed Project Directors would then be invited for a Power Point Presentation before the Expert Committee at the ICSSR or presentation through Skype.
- (4) The recommendations of the Expert Committee would then be placed before the Research Committee for its final decision.

## **6.9 Duration and Value**

- (1) Research Projects shall have six months to two years duration, depending upon the requirement of the work.
- (2) Research Programme of large inter-disciplinary and inter-institutional studies involving a number of scholars, could also be proposed with a budget from Rs 15 lakh to 50 lakh. The budget for Minor Projects would be upto Rs 5 lakh. For Major Projects, it could be Rs 5 lakh-15 lakh. However, the Committees decision regarding budget will be final.
- (3) The amount will be disbursed in number of instalments, depending on the phases and duration of the study, as indicated in the Sanction Letter.
- (4) The Institute/group of scholars will frame the budget subject to the following broad expenditure sub-heads:

<b>S.No.</b>	<b>Heads of Expenditure</b>	<b>Value</b>
1	Project Director/Co-Project Director	Honorary
2	Research Staff : Full time/Part-time/ Hired Services	Not exceeding 45% of the total budget.
3	Fieldwork: Travel/Logistics/Boarding, etc. including Books/Journals	Not exceeding 35%
4	Equipment and Other Items: computer, printer etc / Source Material/ Software and Data Sets, etc.	Not exceeding 10%
5	Contingency	Not exceeding 5%
6	Publication of Report	5%*
	<b>TOTAL</b>	<b>100%</b>
	Institutional Overheads (over and above the total cost of the project)	Affiliating Institutional overheads 7.5% of the approved budget in the case of Major Research Project, 5% in the case of Minor Research Project and 5% or Rs 1 lakh whichever is less in the case of Research Programme shall be applicable

\* The five percent (5%) publication amount will be spent by the ICSSR Publication Division if the final report is found publishable by an Expert Committee constituted by the ICSSR.

For more details visit [www.icssr.org](http://www.icssr.org)

# Chapter 7

## Funding Opportunities at Department of Biotechnology (DBT)

### 7.1 Fundamental Research under the bilateral program with Germany (DBT-DFG)

- **Funding Opportunities for Indo-German Fundamental Research Projects in the Life Sciences**

DBT and DFG resume their open synchronised funding programme for fundamental research projects in all fields of the life sciences.

**Since this programme addresses all fields of the life sciences, interested applicants may note that it is also suitable for Indo-German projects about epidemics or pandemics such as the current SARS-CoV-2 pandemic. Please note that in line with the general orientation of this programme, only proposals describing fundamental research projects will be considered. This excludes, for example, clinical trials or applied diagnostics. If you are unsure about whether a given project would count as fundamental research, please contact DBT and/or DFG before you write and submit a proposal.**

DBT and DFG expect that proposals submitted under this funding initiative describe ambitious projects of curiosity-driven research, which do not just benefit from but essentially require international collaboration to achieve the defined objectives. The basis for this funding initiative is the Programme of Cooperation signed by the two agencies on 25 October, 2012.

Proposals must be written in English and clearly marked as DBT-DFG proposals (as part of the project title). They can be submitted at any time of the year but have to be submitted to both DFG and to DBT in parallel in accordance with the proposal preparation requirements of each side, respectively. While conforming to the different respective regulations, forms and submission procedures of the two agencies, the project descriptions must be identical in their substance. As the projects must be fully integrated Indo-German research projects, it is expected that the proposals contain detailed information about the mode and essentiality of collaboration between the Indian and the German side.

German researchers can only apply for funds for the German side of a joint project; Indian researchers can only apply for funds for the Indian side of a joint project. German researchers have to submit the proposals electronically via the elan portal; Indian researchers have to submit the proposals as a single consolidated PDF file by e-mail to [ic.dbt2019@gmail.com](mailto:ic.dbt2019@gmail.com) in stipulated proforma (for more details visit [www.dbtindia.gov.in](http://www.dbtindia.gov.in)).

### **Further Information about proposals and their submissions**

#### Prior to proposal submission to DFG (for German applicants):

Please ensure that the applicants on the German side have a valid account with up-to-date contact information on the proposal submission portal elan. If not, please request/update your account as early as possible. Please note that the processing of your registration/update can take up to five working days.

#### To submit a proposal to DFG (for German applicants):

Please follow the Guidelines for the Research Grants Programme (DFG form 50.01) and the Proposal Preparation Instructions Project Proposals (DFG form 54.01):

[www.dfg.de/formulare/50\\_01](http://www.dfg.de/formulare/50_01)

[www.dfg.de/formulare/54\\_01](http://www.dfg.de/formulare/54_01)

DFGs Electronic Proposal Processing

System for Applicants –elan:

<https://elan.dfg.de>

Please note that the corresponding applicants in India need to be entered as cooperation partners in the elan web form.

► **Eligibility**

- The call is open to all career groups (i.e. early, intermediate and senior); however, it is expected that investigators will have adequate service tenure to accommodate key research, coordination and outreach responsibilities. Early career investigators are encouraged to participate.
- Government of India supported or recognised (Public or Private) academia; research organisations and urban or other local bodies
- Government of India recognised not-for-profit, NGO(s)/ VO(s)/ Trust(s)/ Research foundations, having research as one of the imperative mandates.

► **Duration**

DBT will fund the Indian investigators as per requirement of the project, for the project duration up to 3years.

► **Eligible costs for funding**

Capital expenditure (equipment's)

Manpower

Consumables

Travel (local & international travel, and local hospitality)

Contingency

Overheads

Outsourcing

Others

For more details visit [www.dbtindia.gov.in](http://www.dbtindia.gov.in)

## **7.2 Forest Biotechnology**

Aiming to take up scientific research & demonstration projects on Forest Biotechnology, Department of Biotechnology (DBT) is desirous of supporting R & D proposals on Forest Biotechnology focusing on the following thrust areas:

1. Development of biotechnological mitigation and adaptation strategies in forestry sector to meet the challenges of climate change.
2. Cutting edge research using newer technologies like tree genomics for understanding of forest tree biology, development of tree diagnostics and planting material improvement for improved productivity and biodiversity of forested ecosystems.

For more details visit [www.dbtindia.gov.in](http://www.dbtindia.gov.in)

3. Development of seed handling and molecular marker-based seed testing/certification technologies for development of good quality seeds and planting materials for industrial forests.
4. Development of site specific technological packages for restoration and rehabilitation of degraded and fragile forest eco-systems.
5. Development of technologies for measuring and maintaining ecosystem services from forests.
6. Modelling and control of invasive species in protected areas using biotechnological approaches.

## **7.3 Human Frontier Science Program**

The Human Frontier Science Program (HFSP) supports innovative basic research into fundamental biological problems that applies novel and interdisciplinary approaches and includes scientific exchanges across national and disciplinary boundaries. HFSP research projects extend the frontiers of knowledge. Successful applications will entail risk and aim to develop novel lines of research for each participating partner that must be different from their

ongoing research. The participation of scientists from outside the traditional life sciences such as biophysics, chemistry, computational biology, computer science, engineering, mathematics, nanoscience or physics is considered a key requisite in HFSP grant applications. To stimulate novel, daring ideas and innovative approaches, preliminary results are not required in HFSP research grant applications. Special emphasis is placed on encouraging scientists early in their careers to participate in the Program Grants. Applicants are expected to develop new lines of research through the collaboration. Awards are for 3 years and made to international (preferably intercontinental) teams of 2 - 4 members. Research Grants (Program Grants) are for independent scientists at all stages of their careers. Grants are also available for teams of early career researchers (Young Investigator Grants) who are all within 5 years of establishing an independent laboratory and within 10 years of obtaining their PhDs. The amount is dependent upon team size, up to \$450,000 per year. The principal applicant must be located in one of the HFSP member countries; co-investigators may be located in any country. Applicants are advised to use the quiz on the HFSP website to check their eligibility and to read the guidelines carefully ([www.hfsp.org](http://www.hfsp.org) ).

For more details visit [www.dbtindia.gov.in](http://www.dbtindia.gov.in)

## **7.4 Nanotechnology based tools to enhance agricultural productivity**

Rationale: Nanotechnology has huge potential in agricultural practices which is not yet exploited. Hence, this department invites R & D Proposals in the following areas.

1. Development of nano-enabled sensors for agricultural applications or crop productivity predictions
2. Smart systems for delivery of agri-inputs through nanotechnological intervention- Precision Delivery Systems
3. Novel nanomaterials based solar cell solutions to mitigate the small electrical needs for farmers.

4. Designing nanomaterials to enhance the efficacy of plant genome engineering.
5. Development of specific nano-products for the agricultural sector e.g. soil-enhancers plant mineral nutrition/health promoters and for increasing interactions with soil microflora.
6. Nano enabled field diagnostics development in all dimensions of cultivable plant health.
7. Nanointerventions for generation of crops resilient to climate change.

**Eligibility:**

Applications may be submitted by public and private universities, colleges, Institutes, non-profit organizations (recognized by DSIR as a Scientific and Industrial Research Organization (SIRO)). Development of interdisciplinary collaborative research team with involvement of experts from nanotechnology/nanobiotechnology/nano-agriculture field is encouraged.

For more details visit [www.dbtindia.gov.in](http://www.dbtindia.gov.in)

- 7.5. There are many more programs and schemes. For details visit [www.dbtindia.gov.in](http://www.dbtindia.gov.in)

# Chapter 8

## Minor Research Projects Sponsored by Shivaji College

### 8.1 Objective

This scheme will provide research support to the faculty members and students of Shivaji College to undertake research. Each project must associate at least five undergraduate students of Shivaji College.

### 8.2 Eligibility

- Applicants [Principal Investigator(s)] should be a faculty member of Shivaji College.
- A faculty member, who once received a project grant under this scheme, will be eligible to apply again after a gap of one year from the date of completion of earlier project.
- Maximum two faculty members can apply in one project involving at least five students. If two faculty members are involved in one project, then both will be designated as Principal Investigator. However, one will be the convener among the two and they will decide this among themselves and mention it in research proposal.
- Teachers working in Ad-hoc capacity in college will also be eligible to apply in the said scheme but they can apply along with a permanent

teacher of the college. Ad-hoc teacher will have to give an undertaking that he/she will complete the project within the stipulated time.

### **8.3 Nature and Duration of Support**

- The scheme will provide research support to an individual teacher or a group of teachers along with at least five undergraduate students of the college.
- The funding will be for a period of one year.
- The maximum research grant for one project will amount to INR 30,000.
- The research grant should be used for small equipments (not available in college), consumables, field visits and contingences.

### **8.4 Selection and Mode of Application**

- An applicant is eligible to apply only one proposal during a call.
- Any proposal rejected should not be resubmitted without any substantial revision.
- The call for applications will be notified through the college website.
- The application form along with a proper research proposal highlighting the research work to be undertaken should be submitted to college before the last date.
- Blind peer reviews of the submitted proposals will be carried out by the relevant subject experts not associated with the college.
- Final selection will be based on the recommendations of the reviewers followed by the approval from competent authority of the college.

### **8.5 Plagiarism**

Proposals submitted must be original in ideation and content. Plagiarism in any form will not be acceptable. Proposals are liable to be rejected if found plagiarised.

## **8.6 Complete Guidelines for Principal Investigator(s)**

### **A. Documents Required:**

- (i) Bio data of Principal Investigator(s) (Prescribed Template)
- (ii) Certificate from Principal Investigator(s) (Prescribed Template)
- (iii) Certificate from Students Associated with the project (Prescribed Template)
- (iv) Research Proposal (One Copy Blind and one copy detailed) (Prescribed Templates)

### **B. Points to be noted:**

- The research proposal may be discipline specific or Interdisciplinary or Trans disciplinary.
- In order to maintain research ethics, it is expected that there should be at least one research publication from the project in journals listed in UGC CARE list / reputed journal.
- The research proposal should have relevance to under graduate students study.
- For safety reasons no student should be sent out of station for any project related work.
- It will be mandatory to make all associated students of Minor Research Project as co-authors while publishing the research outcomes.
- A midterm evaluation of the project will be done by the college and the Principal Investigator(s) will have to submit the midterm progress report.
- An extension for completion/ publication of research project outcome, without financial assistance may be given to Principal Investigator(s) on written request subject to a maximum of six months.
- Final report and research outcomes related to project should be presented before the committee in group monitoring workshop conducted by the Research Cell in the College.

- Proper Utilization Certificate along should be submitted to the college after completion of the project within a maximum of one month time from the date of completion.

## 8.7 Bio-Data(Template)

1. Name
2. Email
3. Contact Number(s)
4. Department
5. Gender
6. Academic Qualification (Undergraduate Onwards):

S.No.	Degree	Year	Subject	University/Institution	% of marks

7. Work experience (in chronological order)

S.No.	Positions held	Name of the Institute	From	To	Pay Scale

8. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S. No.	Name of Award	Awarding Agency	Year

9. Publications (List of papers published in last 5 years, in year wise descending order).

S.No.	Author(s)	Title	Name of Journal	Volume	Page	Year

10. Books/Reports/Chapters/General articles etc in last 5 years:

11. Details of Projects completed/ongoing by Principal Investigator

S. No.	Title	Fund Received	Duration	Role as PI	Funding Agency

12. Any other Information (maximum 500 words)

## **8.8 Certificate from the Investigator(s)[Template]**

### **Project Title:**

It is certified that

1. The same project proposal has not been submitted elsewhere for financial support.
2. We/I undertake that spare time on equipment procured in the project will be made available to other users.
3. We/I agree to submit a certificate from Institutional Biosafety Committee, if the project involves the utilization of genetically engineered organisms. We/I also declare that while conducting experiments, the Biosafety Guidelines of Department of Biotechnology, Department of Health Research, GOI would be followed in toto.
4. We/ I agree to submit ethical clearance certificate from the concerned ethical committee, if the project involves field trails/experiments/exchange of specimens, human & animal materials etc.
5. The research work proposed in the project does not in any way duplicate the work already done or being carried out elsewhere on the subject.
6. We/I agree to abide by the terms and conditions Minor Research Project Scheme of Shivaji College.

Name and signature of Principal Investigator(s):

Date:

Place:

## **8.9 Certificate from Student(s)[Template]**

### **Project Title:**

It is certified that

1. We are well aware that we have to work in this project in addition to the course work at Shivaji College and we will be able to manage the project work without hampering our own studies.
2. We are aware that we will not be given any stipend for working in the project.
3. We are not forced to work in the project and we have taken consent from our parents to work in the project in addition to our own course work.
4. We agree to abide by the terms and conditions of Minor Research Project Scheme of Shivaji College.

Name and signature of Student(s):

Date:

Place:

## **8.10 Research Proposal (Blind)[Template]**

### **1. Origin of the Proposal: (Maximum 1 page)**

(Rationale for doing this work should be elaborated)

### **2. Importance of the proposed project in the context of current status (Maximum 1 page)**

(Highlight what is the new area or gap which will be solved in the project in relating to what is already known. This is a very important section to

project the novelty content of the proposal)

### **3. Work Plan:**

#### **3.1 Methodology:**

(It should contain all the details of how each of the objectives will be addressed. This section must be detailed and have clear plans, not generalized statements. It should explain and justify how and why the project research plan will work)

#### **3.2 Time Schedule of activities giving milestones (Maximum 1/2 page)**

### **4. Bibliography (Maximum 1 page)**

(Some selected bibliography)

### **5. Proposed Budget**

(Elaborate the fund requirement under each required heads)

## **8.11 Research Proposal (Detailed) [Template]**

### **1. Origin of the Proposal: (Maximum 1page)**

(Rationale for doing this work should be elaborated)

### **2. Importance of the proposed project in the context of current status (Maximum 1 page)**

(Highlight what is the new area or gap which will be solved in the project in relating to what is already known. This is a very important section to project the novelty content of the proposal)

**3. Work Plan:**

**3.1 Methodology:**

(It should contain all the details of how each of the objectives will be addressed. This section must be detailed and have clear plans, not generalized statements. It should explain and justify how and why the project research plan will work)

**3.2 Time Schedule of activities giving milestones (Maximum 1/2 page)**

**4. Bibliography (Maximum 1 page)**

(Some selected bibliography)

**5. Proposed Budget**

(Elaborate the fund requirement under each required head)

**6. Summary of roles/responsibilities for all Investigator(s):**

(If the proposal contains more than one Investigator, it is important to clearly mention the role of each Investigator in implementing the objectives of the proposal)

S.No.	Name of Investigation	Roles/Responsibilities

**7. Summary of roles/responsibilities for all associated student(s):**

(Clearly mention the role of each student in implementing the objectives of the proposal)

S.No.	Name of Student	Course & Department	Contact No. & Email Address	Roles/Responsibilities

8. **Name, designation, institutional affiliation, email id and contact number of three persons who are aware with this area of study**

# Appendix A: Selected List of Ministries, who provide funding for research

1. Ministry of Ayush(<http://ayush.gov.in>)
2. Ministry of Environment (Website:[www.envfor.nic.in](http://www.envfor.nic.in))
3. Department of Scientific and Industrial Research (Website:[www.dsir.gov.in](http://www.dsir.gov.in))
4. Ministry of Food Processing (Website:[www.mofpi.nic.in](http://www.mofpi.nic.in))
5. Ministry of Non-Conventional Energy Sources (Website:[www.mnes.nic.in](http://www.mnes.nic.in))
6. Ministry of Power, Central Power Research Institute  
(Website:<http://powerresearch.cpri.res.in>)
7. Ministry of Water Resources, ICID (website:[www.wrmin.nic.in](http://www.wrmin.nic.in))
8. Department of Education (Website:[www.edudel.nic.in](http://www.edudel.nic.in))
9. Science and Technology: Application for Rural Development  
(Website:[www.scienceandtechnology.dst.org](http://www.scienceandtechnology.dst.org))
10. Science and Technology: For Weaker Sections.  
(Website:[www.scienceandsociety.dst.org](http://www.scienceandsociety.dst.org))

# Appendix B: Selected List of National Agencies, who provide funding for research

1. University Grant Commission (UGC) (Website:[www.ugc.ac.in](http://www.ugc.ac.in))
2. Centre for Scientific and Industrial Research (CSIR)  
(Website: [www.csirhrdg.res.in](http://www.csirhrdg.res.in))
3. Indian Statistical Institute (ISI) (Website:[www.isid.ac.in](http://www.isid.ac.in))
4. Indian Council of Social Science Research (ICSSR) (Website:[www.icssr.org.in](http://www.icssr.org.in))
5. Reserve Bank of India (RBI) (Website:[www.rbi.org.in](http://www.rbi.org.in))
6. National Council of Applied Economic Research (NCAER)  
(Website:[www.ncaer.org](http://www.ncaer.org))
7. National Institute of Public Finance and Policy (NIPFP)  
(Website:[www.nipfp.org.in](http://www.nipfp.org.in)),
8. Institute of Economic Growth (IEG) (Website:[www.iegindia.org](http://www.iegindia.org)).
9. Indira Gandhi National Centre for the Arts, New Delhi.(<http://ignca.gov.in/>)
10. The Nehru Memorial Museum & Library, New Delhi.  
(<https://nehrumemorial.nic.in/>)
11. Indian Council for Cultural Relations, New Delhi.(<https://www.iccr.gov.in/>)
12. Indian Council of Historical Research, New Delhi. (<http://ichr.ac.in/content/>)
13. Indian Council of Social Science Research, New Delhi.  
(<https://icssr.org/research-projects>)
14. Indian Council of Philosophical Research, New Delhi.(<http://icpr.in/>)

15. Department of Science and technology(<http://www.dst.gov.in/>)
16. Department of Biotechnology (<http://dbtindia.gov.in/>)
17. National Council of Educational Research and Training  
([https://ncert.nic.in/research-grants-\(ERIC\).php?ln](https://ncert.nic.in/research-grants-(ERIC).php?ln))

# **Appendix C: Selected List of International Organizations, who provide funding for research**

1. World Bank (WB) (Website:[www.worldbank.org](http://www.worldbank.org))
2. International Monetary Fund (IMF) (Website:[www.imf.org](http://www.imf.org))
3. Asian Development Bank (ADB) (Website:[www.adb.org](http://www.adb.org)),  
United Nations Conference on Trade and Development (UNCTAD)  
(Website:[www.unctad.org](http://www.unctad.org))
4. United Nations Development Programme (UNDP) (Website:[www.undp.org](http://www.undp.org))
5. World Trade Organization (WTO) (Website:[www.wto.org](http://www.wto.org))
6. Ford Foundation (Website:[www.fordfoundation.org](http://www.fordfoundation.org))
7. United Nations Educational, Scientific and Cultural Organization  
(UNESCO) (Website:[www.unesco.org](http://www.unesco.org))
8. International Food Policy Research Institute (IFPRI) (Website:[www.ifpri.org](http://www.ifpri.org))
9. Bill and Melinda Gates Foundation (Website:[www.gatesfoundation.org](http://www.gatesfoundation.org))

# References

- [1] <http://www.serb.gov.in>
- [2] <https://dst.gov.in>
- [3] <https://www.ugc.ac.in>
- [4] <https://www.csir.res.in>
- [5] <http://www.nbhm.dae.gov.in>
- [6] <https://www.drdo.gov.in>
- [7] <https://icssr.org>
- [8] <http://dbtindia.gov.in>

