



EXTRAMURAL / INTRAMURAL RESEARCH SCHEME

Financial Assistance to the R&D Projects in Thrust Areas
of Forensic Science to Building Capability in Forensic
Services

SCHEME BOOK



DIRECTORATE OF FORENSIC SCIENCE SERVICES
MINISTRY OF HOME AFFAIRS, GOVT. OF INDIA
BLOCK NO. 9, 8TH FLOOR, CGO COMPLEX
NEW DELHI - 110 003
Website: dfs.nic.in, Email: cfs-dfss@nic.in

Contents

| Sr. No. | Content |
|----------------|---|
| 1 | Introduction |
| 2 | Aims of the scheme |
| 3 | Objective of the scheme |
| 4 | Research areas in which project will be invited |
| 5 | Eligibility criteria |
| 6 | Funding |
| 7 | Submission of Proposal |
| 8 | Publication of scheme |
| 9 | Screening of the proposal |
| 10 | Monitoring & Evaluation |
| 11 | General guidelines for submission of proposals |
| Annexure-I | Application for financial assistance |
| Annexure-II | Format of biodata of the principal investigator and co-investigator |
| Annexure-III | PI/Co-PI Employer Certificate |
| Annexure-IV | Format of progress report of the project |
| Annexure-V | Format of project completion report |

**Ministry of Home Affairs, Government of India
Directorate of Forensic Science Services**

Extramural/Intramural Research Scheme (EMR/IMR Scheme)

Financial Assistance to R&D projects in thrust areas of Forensic Science for capability building in Forensic Science Services.

1. INTRODUCTION

Forensic science is a multi-disciplinary science which deals with application of different methods and techniques to aid criminal justice delivery system. It is well known that forensic science, when properly applied and presented, can be critical to the outcome of a prosecution and exoneration. Due to speed of technological advancement and increasing globalization, crime is continuously evolving and adapting. New crime trends have emerged, with people committing crimes in cyberspace, crime against women and children, and abusing new psychoactive substances and drugs. However, the technological advancement for detection of crime did not happen at the same pace at which crime has emerged.

Therefore, new technology advancement is required to meet the ever increasing challenges for solving crimes. Unless need based research is conducted; the forensic problems may not find solution and will persists. As compared to the ever-increasing crime occurrence, the level of R & D inputs in forensic science still needs more thrust & patronage.

In present scenario, most of the State FSLs do not carry any R & D projects due to lack of funds by the State Governments. Since the State level forensic professionals deal with wide variety of evidence and encounter numerous problems; plenty of ideas may be available and the opportunities for R&D are also enormous. The Extramural Research Scheme has been formulated to provide financial assistance to carry Research on need based forensic problems and to facilitate ever-increasing demand for the successful detection of crime by Law Enforcement Agencies.

The Directorate of Forensic Science Services being the only nodal agency in India for the development of forensic science services in the country, has been re-sourcing the funds through various schemes of MHA to modernize & upgrade the existing forensic services and infrastructure, creating new forensic facilities and upgrading forensic technologies. Besides that the State FSLs have also been encouraged to take up need based research on different forensic problems. Since the universities and State FSLs need fund for their R & D needs, DFS is approached by various forensic teaching institutions for fund requirement on forensic based projects.

2. AIMS OF THE SCHEME

The scheme aims to find solution based research for forensic problems by extending R&D project funding with universities, State FSLs and other S & T institutions for projects of forensic relevance. DFSS aims re-source funds to outside organizations for conducting research and finding need based solutions for forensic problems and generate innovative and knowledge based technologies for betterment of Forensic Services.

3. OBJECTIVES

- Primary objective of this scheme is to promote research activities in the emerging fields of forensic science and to make the State FSLs, universities and other S&T institution as R & D centre for research in forensic problems.
- To give a impetus to R & D aspects of Forensic Science so that indigenous technologies may be developed to reduce the cost of kits & consumables resulting into the reduction of burden on Govt. Exchequer.

4. RESEARCH AREAS IN WHICH PROJECTS WILL BE INVITED

- Forensic Biological Sciences (Biology & DNA profiling).
- Forensic Chemical Sciences (Toxicology, Narcotics, Explosives & Chemistry).
- Forensic Physical Sciences (Physics, Ballistic & Document)
- Digital Forensic / Forensic Electronic(Computer/Mobile/Audio-Video/Speaker Identification/Image Processing)
- Forensic Psychology.

6. ELIGIBILITY CRITERIA

The applicant should have an excellent academic career and should have publications in Peer Reviewed Indian and foreign journals and/or should have invented technologies supported by Indian/ International patents. The applicant should hold regular* academic / research position in a recognized academic institution / FSL / S & T institution.

The proposed research project should clearly reflect the innovative thinking and execution capabilities of the applicant in the area of Forensic Sciences.

The minimum eligibility criteria for applicants will be the following:
Qualification: Preferably Ph.D. in any branch of Science including Forensic science Master degree holders in Medicine, Engineering/Technology are also eligible to apply.

The applicant should be an Indian National. In addition to the above minimum eligibility criteria, it is essential that the proposed project work is carried out in any recognized research institution/university/Forensic laboratory in India

having adequate facilities to carry out the proposed research project. A consent letter from the Institution/ University is required to be furnished along with the application.

[*The term Regular refers to those candidates who are appointed against the sanctioned post, which are regularized after confirmation of probation period]

7. FUNDING

7.1 Scope of funding:

Funding shall be provided by DFSS, MHA for execution of the research proposals in the emerging fields of Forensic Science having forensic relevance received from research institutions/ organizations/universities, forensic laboratories and approved by DFSS/MHA on recommendation of the expert committee constituted for the purpose.

7.2 Budget

The funding under this scheme shall be up to a maximum of Rs. 50.00 lacs and should commensurate with the objectives/activities proposed. All research related expenses to be booked under Machine & Equipment, Consumables, Manpower, Contingency, Travel etc (Minimum amount for M&E should be proposed since this is not a capacity building scheme for infra structure creation. The major infrastructure should exist in the laboratory. Funds for minor equipment shall only be considered under the Scheme. In exceptional case of R&D focusing on concept development, financial assistance for procurement of major equipment can be only considered.

8. SUBMISSION OF PROPOSALS

Eight copies of the project proposals for consideration under this scheme can be submitted in the required format to "the Senior Scientific Officer Gr. I (FS), Directorate of Forensic Science Services, Block 9, 8th Floor, CGO Complex, Lodhi Road, New Delhi 110003". The last date of receipt of applications will be within 30 days of publication of advertisement. The envelope containing the proposals should be super scribed with: "EMR proposals DFSS" – (Broad Subject Area)".

9. PUBLICATION OF SCHEME

The Scheme shall be uploaded on the website of DFSS and advertised in two national dailies having wide circulation all over India.

10. SCREENING OF THE PROPOSALS

The proposals shall be screened by an Expert Committee consisting of core members and subject experts. If required, the Principal Investigator shall be asked to make necessary changes in the proposals and giving a presentation to defend the proposal. Proposals submitted need to be original and plagiarism in any form will not be accepted. The submitted proposal may be subjected to plagiarism check and proposal are liable to be rejected if found plagiarized.

The recommendations of the screening Committee shall be considered by the competent authority i.e. Director-cum-Chief Forensic Scientist, DFSS, prior to sanction/approval of a project proposal.

The Expert Committee shall comprise of eminent members from Forensic Science, Academics, Law Enforcement Agencies and subject experts (not from the organization of the applicants).

11. MONITORING AND EVALUATION

Project progress (scientific and financial) to be communicated every six months by the PI through the head of the institute to DFSS. The Expert committee shall be responsible to monitor the progress of the project, judge any additional requirement of the project and take midcourse correction wherever essential. The Expert Committee will also decide about extension of the project beyond the specified time. The review will be done twice every year. All the projects under the scheme will be reviewed by the DFSS and R & D evolution board consisting of eminent members from Forensic Science, Academics, Law Enforcement Agencies and subject experts. In case of unsatisfactory progress, the further funding of the project can be terminated.

While the above project would be carried out during the current financial Year, the status would be reviewed at the end of the financial year about its continuance. Depending upon the status, the project would either be closed or continued during the next Year.

12. GENERAL GUIDELINES FOR SUBMISSION

12.1 The applicant should fulfil the eligibility criteria (education & age) as given under 'Eligibility'.

12.2 The funding is up to a maximum of Rs. 50.00 lacs for the study. In exceptional case higher funding can be considered.

12.3 The Research Project with study to be accomplished within a period of 1 to 3 Year will be considered under this Scheme.

12.4 Projects involving DNA Studies, Live Explosive Analysis, Ballistic Phenomena Studies have to be certified by Institutional Biosafety Committee / Safety Committee before submission of application for consideration. A Certificate of the Biosafety/Safety Committee should be enclosed with the Project proposal.

12.5 Projects, which are clinically oriented, or projects, which involve experiments with human and/or animal material, should be examined and certified by Institutional Ethical Committee (Certificate to be enclosed).

12.6 All the required information should be given in the text of the proposal itself and not as annexure.

12.7 Incomplete application & application lacking scientific/technical details would not be considered.

12.8 The envelope containing the proposals should be super scribed with: “EMR proposals DFSS” – (Broad Subject Area)” and should reach within the prescribed period.

12.9 Eight (8) copies of the complete proposal, in the format annexed as annexure I along with PI & CO-PI bio-data in format annexed – II, along with a copy of Employer Certificate in format annexed – III, neatly typed in Arial Font with Size 12 on A-4 size paper, should be submitted to DFSS within 30 days of the publication of the advertisement.

12.10 The Project can be terminated by DFSS on recommendation of the Monitoring committee or found not meeting the objectives of the Scheme on review at any stage.

12.11 Address for mailing application and contact person:-

The Senior Scientific Officer (FS)
The Directorate of Forensic Science Services,
Block 9, 8th Floor, CGO Complex,
Lodhi Road, New Delhi 110003.

Telefax: 011-24362819

Phone: 011-24361085

E.mail: ssofs-dfss@nic.in

Website: www.dfs.gov.in

Annexure: 1

Ministry of Home Affairs
Directorate of Forensic Science Services
Government of India

Application for Financial Assistance to carry R&D Project under EMR Scheme

1. Broad subject area (Physics, Chemistry, Biology, Cyber, Document):

Specialization :

Title of the proposed project:

Name and address of the Investigator:
(including Mobile Phone No., Email Address and Fax No.)

Name and address of the Co- Investigator:
(including Mobile Phone No., Email Address and Fax No.)

Details of the proposed project to be undertaken:

Origin of the proposal:

Review of Research & Development in the field:

Review of R&D in the proposed area (National & International Status):

Objectives of the proposed project:

Importance of Study and Impact on Forensic Services:

Research plan (including detailed methodology and time schedule with milestones):

Future plans:

Bibliography:

Details of the research funding received in the past and/ongoing projects (mention Ref. no., title, duration, cost, funding agency, and brief achievements):

List of publications (Along with Impact Factor & Citation of Paper):

Name and address of the institution where the proposal will be executed:

Facilities provided/to be made available at the host institute:

Name(s) and address(es) of Indian expert(s) in the proposed area:

Details of financial requirements for three years (with justifications)

| S.No. | Head | Total | |
|--|--|-------|--|
| 1st Quarter 2nd Quarter 3rd Quarter 4th Quarter | Recurring: 1. Temporary manpower 2. Consumables 3. Travel (within India) 4. Contingency Non-Recurring: 1. M&E: Minor Equipment (Generic Name with minimum required accessories, make & model & cost Indian Rupees) 2. Overhead Costs (@20% of project cost) | | |

Have you ever applied before under this scheme If yes, give details:

Any other information in support of the proposed project:

Statement from the Present Employer as per Annexure-3

Undertaking of the Applicant :-

I _____ certify that the aforesaid project has not been submitted to any other agency for financial assistance to carry out the Studies mentioned in the proposal.

I _____ on my own behalf and behalf of other co-investigator undertake that the financial assistance provided by the Directorate of Forensic Science Services if for the proposed study will be acknowledged in all the Research Papers and patent filed based on result of the funded study.

Place & date: Signature of the applicant

15 . Recommendation of the Head of the Institute:

This is to certify that the necessary infrastructure facilities available in the University/Institution/Laboratory will be provided to the PIs & Co-PIs for carrying out the studies outlined in the proposal.

Signature of the Head of the Institute/ Registrar of University

Seal:
(including Mobile Phone No., Email Address and Fax No.)

Place & date:

Annexure - II
Ministry of Home Affairs,
Directorate of Forensic Science Services
Government of India

**Application For Financial Assistance
To carry R&D Project under EMR Scheme**

Format for Bio-data of the Principal & Co Investigator

Name of the Applicant:

Mailing Address (Indicate Telephone, Fax, E-mail, etc.):

Date of Birth:

Designation in the Organization:

Category (Gen/SC/ST/OBC):

Educational Qualifications (Starting from Graduation onwards):

| S.No. | Degree | University | Year | Subjects | Percentage |
|-------|--------|------------|------|----------|------------|
|-------|--------|------------|------|----------|------------|

Details of professional training and research experience, specifying period:

Details of employment (past & present):

List of significant publications during last five years (with details of impact factor and citation):

Details of patents:

Details of books / Book chapters:

Professional Recognition, Awards, Fellowships received from National & International Bodies:

Any other relevant information:

Place & date:

Signature of the applicant (PI)

ANNEXURE - III

Ministry of Home Affairs,
Directorate of Forensic Science Services
Government of India

Application For Financial Assistance To carry R&D Project under EMR
Scheme (PI/CO-PI Employer Certificate)

This is to certify that:Dr./Mr./Ms _____, the Principal Investigator in the project entitled.....will assume full responsibility for implementing the project. The date of appointment starts from the date on which the University/Institute receives the bank draft/cheque from the Department of Science & Technology.

The Investigator will be governed by the rules and regulations of the University/ Institute and will be under administrative control of the University/ Institute for the duration of the project.

The grant-in-aid by the Department of Science & Technology will be used to meet the expenditure on the project and for the period for which the project has been sanctioned as indicated in the sanction letter/ order. No administrative or other liability will be attached to the Directorate of Forensic Science Services at the end of the project. The University/ Institute will provide basic infrastructure and other required facilities to the investigator for undertaking the research project. The University/ Institute will take into its books all assets received under this sanction and its disposal would be at the discretion of Directorate of Forensic Science Services Institute assumes to undertake the financial and other management responsibilities of the project.

Seal of University/Institute Signature
Registrar of University/Head of Institute

ANNEXURE - IV

Ministry of Home Affairs,
Directorate of Forensic Science Services
Government of India

DFSS FUNDED RESEARCH SCHEME

PROGRESS REPORT

(To be submitted to DFSS every 6 months)
(Period : _____ to _____)

Title of the project:
DFSS NO.

Name & Address of the PI: Date of Birth:
Name & Address of the Co-PI: Date of Birth:
Broad Area of Research:
Sub-Area:
Approved Objectives of the project:
Date of Commencement:
Date of Completion:
Total Cost of project:
Expenditure as on

Methodology:
Salient Research achievements:
Summary of progress:
Conclusion:
New Observations:
Innovations:
Application potential:
Research work remains to be done:
Any other:

14. PhD produced: Technical persons trained:
15. Research publications arising out of the work: (Please give number and publication details along with a copy of the Publications)
(i) Research publications in SCI journals:

- (ii) Research publications in non-SCI journals:
- (iii) Work presented in conferences/symposia:
- (iv) patents filed/to be filed:

16. Financial progress: As per proforma provided in the scheme booklet.

Name and Signature with Date

a. _____
(Principal Investigator)

b. _____
(Co-Investigator)

Dated (Signatures and seal of the
Director of Institute/ Laboratory/ Registrar of the
University forwarding the
Project completion report)

ANNEXURE - V

Ministry of Home Affairs,
Directorate of Forensic Science Services
Government of India

DFSS FUNDED RESEARCH SCHEME

PROJECT COMPLETION REPORT

Notes:

1. Ten copies of the Project Completion Report (PCR) should be sent within one month of the completion or termination of the project.

2. The PCR should be in bound form.

3. Cover page should include the title of the project, file number, name and addresses of the investigator.

1. Title of the project:

2. Principal Investigator(s) and Co-Investigator(s):

3. Implementing Institution(s) and other collaborating Institution(s):

4. Date of commencement:

5. Planned date of completion:

6. Actual date of completion:

7. Objectives as stated in the project proposal:

8. Deviation made from original objectives if any, while implementing the project and reasons thereof:

9. Experimental work giving full details of experimental set up, methods adopted, data collected supported by necessary table, charts, diagrams & photographs:

10. Detailed analysis of results indicating contributions made towards increasing the state of knowledge in the subject:

11. Conclusions summarizing the achievements and indication of scope for future work:

12. S&T Outcome:

13 List of Research publications (Please attach copy of Publication)

S No
Authors
Title of paper
Name of the Journal
Volume
Pages
Year

- i). Patents taken, if any
- ii. Manpower trained on the project (with details of)
 - a) Research Scientists or Research Associates:
 - b) No. of Ph.D. produced:
 - c) Other Technical Personnel trained :

14) Details of Expenditure/Status of Fund Utilization

Financial Position/ Budget Head
Funds Sanctioned
Expenditure % of Total cost
Balance

15. Procurement/ Usage of Equipment:

- a) S No/ Name of Equipment Make/Model
- b) Cost (FE/ Rs)
- c) Utilization Rate (%)
- d) Date of Installation
- e) Plans for utilizing the equipment facilities in future:

Name and Signature with Date

a. _____
(Principal Investigator)

b. _____
(Co-Investigator)

c. (Signatures and seal of the
Director of Institute/Laboratory
/Registrar of the
University forwarding the