

Call for Proposals

Honorary Thematic Hubs and Spokes for Gold Standard Datasets in Medical Image Analysis

Introduction

Artificial Intelligence (AI) is emerging as a promising technique for diagnosis, treatment planning, and monitoring the progression of various diseases. Indian Council of Medical Research (ICMR) in collaboration with the Indian Institute of Science (IISc) has initiated a collaborative project – MIDAS India (Medical Imaging/Information DATaSets for India), aimed at establishing reference gold standard datasets for developing and evaluating robust AI based tools. This initiative will overcome the challenges posed by the current fragmented and inconsistent datasets which is critically impacting the development and comparative evaluation of AI/ML based diagnostic tools. This collaboration is creating comprehensive, high-quality medical datasets, which accurately represent the Indian demographic diversity; thus harnessing the immense potential of artificial intelligence and bioinformatics to advance healthcare.

Objectives

The primary goal of this project is to address the challenge of the lack of standardized, curated datasets which hinders the development and comparative evaluation of effective diagnostic tools. By establishing gold standard datasets in various thematic areas, this project will pave the way for advancements in the diagnosis of diseases such as cancer, malaria, skin conditions, and more.

Call for Proposals

We invite proposals from institutes or groups interested in becoming honorary thematic hubs with spokes and associate with ICMR-IISc collaborative initiative. Your contribution to this initiative will play a pivotal role in establishing and advancing AI/ML based health ecosystem in India.

Selection Criteria

Proposals will be evaluated based on the following criteria:

- Relevance to thematic areas
- Expertise in data collection and curation
- Alignment with ICMR-IISc initiative
- Feasibility of proposed approach
- Experience in handling similar projects

Important Note

Please note that this call is for honorary participation without any financial assistance from ICMR.

Submission Guidelines

- Proposals should be submitted electronically in PDF format in format attached as Annexure-I on suruchia.hq@icmr.gov.in/pnarad.hq@icmr.gov.in.
- The subject line of the email should be "Proposal for ICMR-IISc Thematic Hubs and Spokes".
- Deadline for submission: 08.02.2024

Contact Information

For further inquiries or submission, please contact Dr. Harpreet Singh at harpreets.hq@icmr.gov.in, +919999496965, +911126588876.

Dr. Raghu Dharmaraju at midas@artpark.in, +91 91677 84929

ANNEXURE-I

Template for submission

Dataset Title	25 words at max. Specific, concise and fully descriptive
Summary of the Data/Dataset	250 words at max. The purpose would be to provide reviewers (and stakeholders) with a clear understanding of the dataset's key characteristics, objectives, and potential impact. Could include details like a brief description, size, target population, data source, and collection process, etc. Essentially serving as a cover letter to all the encompassing details
Dataset Objective(s)	The main purpose or objectives of the gold standard dataset Submission
Geographical Distribution of Data	Should include information on the number of locations, healthcare facilities, or regions from which the data has been collected. Ideally an expandable database entity in itself for standardisation.
Demographic Information	Should include information about the participants (e.g., age, gender, ethnicity) to ensure the dataset represents the diversity of the population.
Is the Data/Dataset truly Digital or Digitised?	Digital Data: Data collected via digital-first methods, ideally with form validators and standardisers. Easier to clean and process with minimal chances of discrepancies and noise.

	Digitised Data: Data collected via non-digital-first methods. Higher chances of alien values, error and data loss due to conversion
Pre-Processing Steps	Describe any preprocessing steps applied to the data (e.g., noise reduction, image enhancement) before it was included in the dataset
Metadata	Essential information like the time period of data collection, date of last update, version information etc
Ethics Committee Approval	I do not see the necessity of this field unless required by convention or some regulations.
Licence under which Data/Dataset is made available	There are various licences for datasets like Public Domain, Public Domain Mark, CC0, PDDL, CCBY, CDLAPermissive-1.0, ODCBY, CCBYSA, CDLASHaring-1.0, ODCODbL, CC BYNC, CC BYND, CC BYNCSA, CC BYNCND, etc. These licences define the rights of usage, transparency, distribution, modification, domain of usage etc
Data/Dataset Dictionary	Details about the variables and their meanings in the dataset. Attached to the document or appended as annexure.
Data Collection Protocol	Information about how the data was collected and the procedures followed. Attached to the document or appended as annexure
Data Collection Status	Information on if all the data is collected or if the process is ongoing.

Size of the Data/Dataset	Information about the volume and frequency of data, including data points, file size, and longitudinal data collection frequency
Current use of the Data/Dataset	Any references to existing papers, efforts or initiatives that have utilised the dataset.
Keywords	6 keywords that best describe the project, most likely for labelling and indexation
Abbreviations Used	Details about the abbreviations used in the dataset. Attached to the document or appended as annexure

Information about Principal Investigator and Co-Principal Investigators

Field	Description/Notes/Remarks
Preliminary Work Done	250 words at max. Details about any preliminary work conducted by the Principal Investigator
Skills and Experience of the Research Team	The research team's expertise and qualifications highlight only the salient points that assure confidence in the team's ability to implement the project with quality, possibly with attached CVs.
Institutional Support and Facilities	Information about support and collaboration from institutions for the study to achieve inter-departmental or inter-institutional

	collaboration needed for study implementation. Should include details of coordination between the clinical, laboratory and data management procedures.
Declaration of Conflict(s) of Interest, if any	Information about any potential conflicts of interest.
Additional Supplementary Information	Figures, tables, flow diagrams, etc. as file uploads. If possible, without size constraints, an inbuilt compressor can be implemented.
Agreement for Ongoing Enrichment of the Data	Whether the PIs and Co-PIs agree to support ongoing enrichment of the dataset as per recommendations from subject experts. Yes No
Digital Signatures and Stamps	Spaces for signatures of the Principal Investigator, Accounts Officer, and Head of the Institute.