





# Second Competitive Research Proposals Program 2021-2022

# **Application and Instructions**

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Website for proposal submission: iksindia.org

# **Dates to Remember**

Proposals Due by

Awards Announced

Funding Available

Progress Report Due

Review of the project

Final Report Due

February 10, 2022

End of February 2022

Middle of March 2022

March 1, 2023

End of March 2023

March 31, 2024

# **About Indian Knowledge Systems (IKS) Division**

Home to the oldest continuously living civilization of the world, the Indian subcontinent has been a knowledge and manufacturing powerhouse of the world for most of the known history. A Dharmic culture that emphasized the development of all dimensions of humanity with an emphasis on living in harmony with oneself, one's environment, and the universe at large. It is becoming very apparent from the recent developments around the world that the current models of development are unsustainable and are in serious conflict with nature. The rising inequalities in the modern world point to a dire need for new paradigms of development.

There is an Indian way that is both sustainable and strives for the welfare of all. The grand vision for the IKS Division of Ministry of Education at AICTE is to initiate a process of training generations of scholars who will show the 'Indian way' to the world. If we want to become the Knowledge Leader in this century and be the 'Viśvaguru', it is imperative that we regain a comprehensive knowledge of our heritage and demonstrate the 'Indian way' of doing things to the entire world. Therefore, the IKS Division of Ministry of Education at AICTE has been established with a vision to promote interdisciplinary and transdisciplinary research on all aspects of Indian Knowledge Systems (IKS), update and disseminate IKS knowledge for further innovations and societal applications.

#### **Functions of IKS division:**

- Facilitate and coordinate IKS based/related inter and transdisciplinary work done by various institutions in India and abroad including Universities, institutions of national importance, R&D laboratories and different ministries and inspire private sector organizations to engage with it.
- 2) Establish, guide and monitor subject-wise interdisciplinary research groups comprising of researchers from institutes, centers and individuals.
- 3) Create and promote popularization schemes.
- 4) Facilitate funding of various projects and develop mechanisms to undertake research.
- 5) Make Policy recommendations wherever required for the promotion of IKS.

# Overview of the Second Competitive Research Proposals Program of IKS Division of MoE @ AICTE

The Competitive Grants Program of the Indian Knowledge Systems is designed to encourage and fund research studies that will contribute to the research mission of the IKS Division. Our goal is to make catalytic grants that encourage original, serious, and deep scholarly research in the Indian Knowledge Systems and rejuvenate IKS research in India. The funds available to support the Competitive Grants Program are discretionary funds provided by the Ministry of Education, Govt. of India to support the activities of the IKS Division. The level of funding available for the program each year is determined by the MoE, Govt. of India. Each proposal call of the division will focus on certain thematic areas identified with the help of experts and IKS researcher community feedback.

Funding research that may eventually lead to deeper understanding or practical products or to solutions to contemporary problems is the top priority. The research proposals must be interdisciplinary, involving the study of the traditional concepts, methods, technologies, or approaches using the modern tools and approaches wherever necessary, in order to solve contemporary societal problems or develop deeper understanding of the Indian Knowledge Systems. Research proposals should preferably be collaborative and involve traditional scholars/scholars well versed with the traditional texts and practices and compare them wherever possible to the developments in modern sciences.

This call for proposals has six research priority areas.

- Mathematics and Astronomy: India has a rich tradition of mathematics and astronomy.
   Most of the mathematics taught in primary and secondary schools today is of Indian origin.
   The mathematics of India was practical in its approach and pragmatic in spirit. Proposals are invited to investigate the historical development of mathematics and astronomy (not astrology) through study of the original texts or of ancient structures and instruments.
- 2. Metallurgy and material science and technology: Indians were pioneers in metallurgy and material sciences. Many of these technologies are on the verge of being lost. It is important to study the technologies to preserve, understand and update the state of the art. Proposals are invited for the study of various metal and alloy processing technologies and possible adaptation of traditional Indian metallurgical technologies in the modern context.
- 3. Chemical science and technology: In India, chemistry (Rasayanashastra) was given the special designation as a "shastra", ie. A system of codified knowledge. Several methods to produce alloys, acids, bases, salts and other chemicals were developed, studied carefully and tested and deployed for various uses including medicines, mortars, dyes and pigments for textiles, arts, murals, paintings in India. Research proposals in the chemical sciences especially with a focus on recreating these technologies for preparing medicines, mortars and dyes and pigments and other materials are also invited.

- 4. Health, wellness, and consciousness studies: Ayurveda, the discipline of health and wellness studies is accorded the status of "upaveda" in India. The systemic approaches of Ayurveda supplemented with the approaches of allopathy can bring in new insights to the human health and wellness. Consciousness studies in India have a very long tradition and the approaches developed in India are being explored in various contemporary studies. Proposals are invited for novel studies in the areas of ayurveda, vipassana (mindfulness) approaches of Buddhists, health, wellness and consciousness studies based on the Indian traditions.
- 5. Political and Economic Thought, Economics and Foreign policy: India is the land of great wisdom in the study of polity and economy, the Rajaneetishastra and Arthashastra, as expounded in our great epics Ramayana and Mahabharata and in the profound works of thinkers such as Shukracharya and Acharya Vishnugupta. Indian empires of the last few millennia consisted of Maurya, Guptas, Cholas, Pallavas, and Vijayanagara who had flourishing economies, transcontinental trades, sent cultural ambassadors to all corners of known world, and even sent military expeditions to safeguard economic and political interests. What was the Indian approach to economics, politics and foreign policy? What were their guiding principles? When did India, a major maritime power started looking inwards and cease to be a major maritime power? What were the reasons? This heritage is relatively less studied especially in the period before 1800 CE. These aspects need to be studied in detail to understand India's political, and economic thought and foreign policy. Research proposals focusing on these important issues concerning India's past are invited.
- 6. Arts and Culture: This is the land that identified 64 kalas or art forms that enrich human life. Detailed explorations on a variety of art forms are an integral part of the rich legacy of the Indian civilization which inspired artists and litterateurs across the world. What was the underlying philosophy, what were the techniques that they used, that allowed magnificent work of arts to continue to enthrall connoisseurs and laymen after millennia of their creations? Research proposals focusing on ways to locate, document, preserve and disseminate art-based knowledge traditions are invited.

# **Proposal Eligibility Criteria/Preparation and Submission Instructions**

The IKS is inviting research proposals from researchers working in the Indian Knowledge Systems. Faculty members in any Govt. recognized educational institutions (private/public), Govt. funded labs and NGOs/Trusts/foundations are eligible to apply. To be eligible for this grant, NGOs/Trusts/foundations must be *solely working* in the research and education related to Indian Knowledge Systems. Independent researchers without an institutional affiliation are not eligible to apply. Funding best research is our priority. When proposals are similarly scored, we give preference to assistant professors, associate professors and professors (in that order). Researchers may submit up to two proposals as principal investigator, but only one will be funded. A researcher can be involved in a maximum of three proposals as a PI or co-PI. If a faculty member submits two proposals and both are ranked for funding, the person will be asked to the proposal for which she/he would like to receive funding. The proposal can be submitted in any Indian Language included in Eighth Schedule or English.

- Proposal(s) should focus on research important to IKS's research mission. Research
  may be basic or applied. Preference will be given to proposals that may eventually
  lead to practical products or practices or leads to solutions to contemporary
  problems.
- 2. Joint, interdisciplinary projects are preferred, and encouraged.
- 3. The maximum award will be Rs. 20 Lakhs over a period of two years. The project must be **completed before 31**st **March, 2024** unless an extension is granted.
- 4. **Proposal deadline is 11:59 p.m. February 10, 2022 and must be submitted through online portal (iksindia.org) only.** Any other form of submissions will not be considered. *Late proposals will not be accepted for any reason*. Awards will be announced, and funds will be available in early March 2022.
- 5. Progress reports are due 1<sup>st</sup> March2023. The research carried out in the project will be reviewed at the end of one year by a committee. Future grants will be made only upon favourable recommendations.
- 6. Final reports are due 31<sup>st</sup> March2024. Besides a detailed report, IKS division requests that a no more than 300-word layperson language summary (Suitable for publicly posting on the webpage) and several photos of your work be submitted with each report. These may be used in IKS's annual report or on our website.
- 7. Failure to follow these proposal guidelines will result in your proposal not being reviewed or funded
  - Please use the proposal template provided. If you use the version at the end of this document, you will need to adjust pagination and margins.
  - Use the signature page provided and make it a separate page in your document.
  - Complete the cover page provided. Make it a separate page in your document.
  - The proposal body with appropriate references should not be more than ten (10) pages long. Please write your proposal in clear simple language and cite no more than fifteen (15) references. Do not list references unless you cite them.
  - Use 1-inch margins on all sides, single line spacing, at least 11-point font.

- If you use page numbers, place them at bottom center.
- A complete proposal includes the following separate documents (as pdf only):
  - Document 1: Cover page
  - Document 2: Proposal narrative
  - Document 3: Budget page
  - Document 4: PI and CoPI resumes
  - Document 5: PI signature and institutional approval pages
- Each of the document files must be <10MB.</li>
- Once your proposal is finalized, save as a PDF file using this naming format YOURLASTNAME\_IKS\_RFP2. If you are submitting two proposals, add a suffix identifier to each file name, i.e., YOURLASTNAME\_IKS\_RFP2\_projectname

#### 8. Submission Process

- Please visit the IKS Division website and fill the details here: iksindia.org
- Upload your PDF proposal files (<10 MB) and then press the submit button
- If your submission has been successful in the web system, a notification will be sent within two days informing you of the successful submission. If you submitted a proposal but do not receive such notice, please contact the IKS.

#### 9. Budget Distribution:

- A total of 20 Lakhs will be available for funding the research over two years that would be sanctioned in two installments.
- Proposals proposing more than the budget limit will be returned without review and automatically excluded from the review process.
- Funding will be provided to support the following
  - Salary for project personnel/project associates/research fellowships/interns. PI or Co-PI salaries/honorariums are NOT supported.
  - Supplies: includes equipment with an individual piece value less than ₹10,000, i.e. ten temperature sensors or chemical bottles at ₹1000 each are still considered to be supplies. Any service charges for the analysis of samples can be included in this budget head.
  - Equipment/Facilities: Any non-consumable item with a single piece value less than ₹10,000 or over is considered equipment. Please note that construction of new facilities (Brick and mortar) is not allowed in this project. Acquisition of resource such as books are acceptable under this budget head. Purchase of computers/laptops/printers are allowed only under extraordinary circumstances with strong justification and explicit approval from the IKS Division. Maximum equipment/facilities budget cannot exceed 20% of the total budget (i.e. ₹ 4.0 lakhs)
  - Travel and conferences: Any travel and related expenses to attend domestic conferences within India are allowed in this grant. International travel is explicitly not allowed. The PI's must plan on attending the Annual IKS

- Symposium/conference. The maximum allowable travel and conference expenses are 5% of the total budget (i.e. ₹ 1.0 lakh)
- Contingencies: Maximum contingency allowed is 5% of the total budget (i.e.
   ₹ 1.0 lakh).
- Overhead: Maximum overhead allowed is 5% of the total budget (i.e. ₹ 1.0 lakh).
- Matching grants: While not mandatory, institutional support through matching grants or any other financial or in-kind support is encouraged to leverage the scant resources of the IKS division. Please indicate monetary and in-kind support from other sources for this project.

#### 10. Review Process

- We will follow a blind peer review process.
- All proposals will be reviewed by multiple independent experts.
- The rating criteria that will be used by the reviewers are given below.
- There will be a presentation before an expert committee for final selection.
- The PIs will receive the average scores for their proposal, and the reviewer comments. The minimum cutoff score for the selected proposals will also be shared in the interest of academic integrity and transparency.
- 11. Please direct any questions to team IKS (coiks@aicte-india.org).

#### **Proposal Rating Criteria**

The following criteria will be used by the reviewers of your proposal to evaluate and rank your proposal against others. Please think about these questions carefully and answer them clearly in your proposal using the proposal structure specified.

- Are the research plan and goals clearly stated and understandable? (10 points)
- Is this project **relevant** to IKS Division's mission and focus areas? (20 points)
- Does the proposed research address a **significant** problem or potential? To what extent is the proposed research **original, innovative, or new**? (20 points)
- Will the results of this study be useful? Might they make a difference? What are the
   economic/environmental/social benefits of this research? (15 points)
- Does the proposed budget seem appropriate for the work to be executed in the project? (10 points)
- Does the PI and the team have necessary competence, prior experience and expertise to undertake the proposed research in the proposed topic? (25 points)

Strength of the proposal (up to 100 words): Please list the specific strengths of the proposal.

Weakness of the proposal (up to 100 words): Please list the specific weaknesses of the proposal if any.

NOT withstanding the weaknesses do you think that there are some specific reasons due to which the project may still be considered for support?

Summary Statement (up to 100 words): Please indicate whether this proposal should be supported or not.

#### Further guidance on proposal preparation

Considerations in preparing your proposal:

- 1. The charge of the IKS is to support **research in Indian Knowledge Systems** that will make meaningful contributions to the furtherance of IKS.
- 2. A good proposal will emphasize how the proposed research is intended to contribute towards the IKS's mission either in the near future or by leading to major developments in the long run. Simply satisfying curiosity or compiling data for a refereed paper will not be in the interest of the IKS Division and will not impress the reviewers.
- 3. Clear communication is the key: Proposals that clearly specify the contribution of the research will score higher.
- 4. Because conveying the results of research to potential users is important, requesting funds for defraying costs of such activities is permitted.
- 5. We do not fund acquisition or construction of facilities (bricks and mortar). Requests for equipment needed to carry out proposed research are permitted. The proposal must describe your need and specify how the equipment will be used in this specific research. Funding will not be provided to better equip your laboratory or facilitate other work.
- 6. It may happen that your reviewers could be scholars who may have only a minimal familiarity with the details of your specialized field. Please write your justification, objectives, procedures, and impacts such that a person who may only have a limited background in your area can understand what you are saying like talking with your next-door neighbor. A proposal that reviewers cannot readily understand is likely to be poorly rated and not funded.
- 7. While it may be easy for you to cut-and-paste material from another proposal when preparing your IKS proposal, your proposal will be rejected if it is obvious that you have done so. Even if you borrow phrases or ideas (NOT cut and paste) ensure that you proofread your proposal to remove any telltale dates, timelines or references that could serve as a cut and paste "giveaway."
- 8. Research that is original and innovative tends to be favored. If appropriate, describe to what extent your proposed study fits this description.

- 9. Future funding is difficult to predict but tell us how the results of your research might help lead to future grant funding from other sources.
- 10. Please keep in mind that funds to finance this research are limited. We will make a call on the number of proposals to be funded based on the availability of funds.
- 11. Be sure the reference citations in your text match those in the reference section and be sure you include only fifteen (15) references. This is a test of ability to count. Be sure to remove "ghost" references a citation listed in the text but not the reference section. Web links to general background information may be included in the text for reader edification purposes. These will not count against your ten-reference limit, but please do not use web links to journal articles.
- 12. If you intend to use IKS project funds in concert with other funding to complete a project, be sure to thoroughly describe the other funding source(s) and amount(s) on your budget page. Reviewers are interested in knowing about funds leveraging possibilities.

# THE INDIAN KNOWLEDGE SYSTEMS DIVISION OF MoE @ AICTE

### **COMPETITIVE GRANTS PROGRAM – 2021-2022**

# 2022IKSPROPOSAL COVER PAGE (not included in page limit)

| 2022INSPROPOSAL COVER PAGE (not included in page limit)  |
|--|
| Proposal title:  |
| Lead Researcher  |
| Name:  |
| Email address:   |
| Phone number:  |
| Academic rank:   |
| Appointment type:  |
| Physical work location:  |
| Academic home department:  |
| Co-PI(s) (if any):   |
| Cooperator(s) (if any):  |
| Project Budget Amount:   |
| I certify that I will lead the project and complete all the tasks outlined in the proposal. I certi that a complete project report will be submitted at the end of the project and the funding support from IKS Division of MoE @AICTE will be acknowledged in any publication resulting from this work. |
| Principal Investigator   |
| Date   |
|  |

**Principal Investigator Printed Name:** 

**2021-22 IKS PROPOSAL BODY** (Ten--page limit; Proposals that exceed the word limits for individual sections will be returned without review)

Overview of the project (250 words): What is the project about? Describe the project idea here.

**Contribution to the IKS Mission (250 words):** How does this project contribute to the CISKS mission?

**Justification (500 words):** Please provide a justification for the project and its importance.

**Objectives and timelines (250 words):** Please provide a clear list of specific objectives for this project. One-Three objectives a reasonable for this RFP. Clear and specific objectives will be given higher weightage.

**Project Intellectual merit (250 words):** What is the intellectual merit of this project? Please clearly specify the scientific impact of the project. What are the scientific questions that will be addressed under the proposed research?

**Project broader impacts (250 words):** What are the broader (Societal, economic and environmental impacts?

**Outputs and outcomes of the proposal (250 words):** What are the outputs and outcomes of the project? Please prepare a list of specific outcomes and outputs. DO NOT use paragraphs to describe the outputs/outcomes.

**Procedures (1000 words):** Please provide a summary of the procedures that will be used in this project. While writing the summary of the procedures ensure to provide with adequate references to literature.

**Project team expertise (250 words):** Please tell us about the prior experience of the PI and the CoPIs in the proposed topic. What are the facilities available to the team to perform the research work outlined in the proposal? Expertise existing with each of the investigators in terms of preliminary results, to execute every component of the proposal should be highlighted.

Specific roles of Co-PI(s) and Cooperator(s), if listed on cover page (250 words): What are the specific roles of the team members? The team must include substantial contribution from all members. 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.

**Timelines (100 words):** Indicate timelines for project tasks and schedule of activities giving milestones through BAR diagram.

References cited (Fifteen references maximum):

# **2021-22 IKS BUDGET** (not included in the page limit – please round all figures to nearest hundred rupees)

NOTE: Please do not exceed the Rs. 20 Lakhs per project limit. Proposals proposing more than the budget limit will be returned without review and automatically excluded from the review process.

**Salaries:** Include the salaries for the research fellows/project associates in this project. PI or Co-PI salaries/honorariums are NOT supported.

**Supplies:** Includes equipment with an individual piece value less than ₹10,000, i.e. ten temperature sensors or chemical bottles at ₹1000 each are still considered to be supplies. Any service charges for the analysis of samples.

Equipment/Facilities: Any non-consumable item with a single piece value less than ₹10,000 or over is considered equipment. Please note that construction of new facilities (Brick and mortar) is not allowed in this project. Acquisition of resource such as books are acceptable under this budget head. Purchase of computers/laptops/printers are allowed only under extraordinary circumstances with strong justification and explicit approval from the IKS Division. Maximum equipment/facilities budget cannot exceed 20% of the total budget (i.e. ₹ 4.0 lakhs)

**Travel and conferences:** Any travel and related expenses to attend domestic conferences within India are allowed in this grant. International travel is explicitly not allowed. The PI's must plan on attending the Annual IKS Symposium/conference. The maximum allowable travel and conference expenses are 5% of the total budget (i.e. ₹ 1.0 lakh)

**Contingencies**: Maximum contingency allowed is 5% of the total budget (i.e. Rs. 1 lakh).

Overhead: Maximum overhead allowed is 5% of the total budget (i.e. Rs. 1 lakh).

#### Total:

**Other funding sources (if any)**: While not mandatory, institutional support through matching grants or any other financial or in-kind support is encouraged to leverage the scant resources of the IKS division. Please indicate monetary and in-kind support from other sources for this project.

# **Resume Format** (Do not exceed two pages for each investigator. The resumes are not included in the page limit)

- 1. Name:
- 2. Correspondence Address:
- 3. Email:
- 4. Contact Numbers:
- 5. Institution:
- 6. Academic Qualification:
- 7. Work Experience (in chronological order):
- 8. Professional Recognition/Award/Prize/Certificate, Fellowship:
- 9. Peer Reviewed Publications:
- 10. Details of Patents (if any):
- 11. Books/Reports/Chapters/General Articles etc.:
- 12. Ongoing/completed Projects during the last 5 years:
- 13. Your competence to undertake this project (Maximum 500 words):
- 14. Any other information (Maximum 500 words):

# Certificate from the Investigator

(Not included in the page limit)

#### **Project Title:**

It is certified that

- 1. The same project proposal has not been submitted elsewhere for financial support.
- 2. I undertake that spare time on equipment procured in the project will be made available to other users.
- 3 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.
- 4. The research work proposed in the scheme/project does not in any way duplicate the work already done or being carried out elsewhere on the subject.
- 5. I agree to abide by the terms and conditions of IKS Division of MoE @AICTE grant.

Signature of the PI Name of the PI Affiliation of the PI Date: Place:

# Endorsement from the Head of the Institution (Not included in the page limit)

This is to certify that:

| 1. Certified that the Institute welcomes participation of as the Principal Investigator and as the Co-Investigator for the project titled, and that in the unforeseen event of discontinuance by the Principal     |     |
|--|-----|
| Investigator, the Principal Co-Investigator will assume the responsibility of the fruitful completion of the project with due information to IKS Division of MoE @AICTE.   |     |
| 2. The date of project starts from the date on which the Institute receives the grant from India Knowledge Systems Division of MoE @ AICTE, New Delhi.   | an  |
| 3. The investigator will be governed by the rules and regulations of Institute and will be und administrative control of the Institute for the duration of the project.  | er  |
| 4. The grant-in-aid by the IKS Division of MoE @AICTE, New Delhi will be used to meet the expenditure on the project and for the period for which the project has been sanctioned mentioned in the sanction order. |     |
| 5. No administrative or other liability will be attached to the IKS Division of MoE @AICTE, No Delhi at the end of the project.  | ;W  |
| 6. The Institute will provide basic infrastructure and other required facilities to the investigat for undertaking the research project.   | or  |
| 7. The Institute will take into its books all assets created in the above project and its disposition would be at the discretion of the IKS Division of MoE @AICTE, New Delhi.                                     | sal |
| 8. The Institute assumes to undertake the financial and other management responsibilities the project.   | of  |
| Seal of Institute Signature of the   |     |
| Head of the Institution with seal  Date:   |     |