ISO Research Grant 2023

Call for research proposals

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1. About the ISO Research Grant

The ISO Research Grant is awarded annually to a postgraduate student or a team (Masters, PhD or post-doc) to conduct a research study related to a theme proposed by ISO. The grant amount is 25,000 CHF. A different theme is proposed each year, but the broad focus is on evaluating the impacts of international standards.

Applicants submit a research proposal related to the year's theme. This proposal can be for a research project related to the researcher's academic work. However, it shall be for an original piece of work and must not have been previously published. ISO recognizes the right of the researcher to later produce a publication on the basis of the scientific results of the research submitted to ISO, provided that this does not interfere with the right of ISO to use the final output of the research for its own purposes, including for marketing and promotional activities (in any media).

In particular, ISO will be granted a worldwide, royalty-free, perpetual, non-exclusive right and license to use, copy, publish, modify, create derivative works therefrom, distribute or make available the final output or translations of it, for any of its own purposes, provided that appropriate credits to the author are given. For example, the final output of the research would be used by the ISO/CS Research and Innovation unit to create materials for dissemination for the attention

of ISO members (the format of these materials will depend on the nature of the study). The researcher will also provide ISO with all data used in the project. Access provisions will be negotiated depending on data sources and applicable law, but ISO must have access to all data included in the final report, including data collected by the researcher directly.

The awarding of the grant does not create any employer-employee relationship with ISO. The researcher or their employing institution will be responsible for paying all the taxes applicable to the fees they will receive. Further details may be defined in a separate contractual arrangement, which will govern the relationship with the selected researcher.

2. Theme 2023

The 2023 theme for the ISO Research Grant is "Standards and emerging technologies: risks, opportunities and governance challenges."

Following the publication of the <u>ISO Foresight Report 2022</u>, ISO identified technological advances as having major repercussions for standardization, from the need for new standards to support the development and commercialization of emerging technologies, to the potential for standards to support the good governance of these technologies. For the Research Grant 2023, ISO would like to further investigate the latter, exploring the role standards can play in technology governance in order to optimize societal benefits at the technological frontier.

As technology becomes integrated into more aspects of our lives, the profile of risks associated with technology is also expanding. New advances in many kinds of technologies pose potentially significant ethical challenges (e.g. artificial intelligence (AI), biotechnology, or decarbonization technologies). This coincides with our increasing use of these technologies, creating potential risks at a macro-level (e.g. cybersecurity of a nation's critical infrastructures) and at a micro-level (e.g. security of personal data and individuals' vulnerability to online manipulation). Such risks are to be expected with the advent of disruptive technologies and they are, arguably, the price we have to pay for the great benefits these technologies offer us; it is a question of how well we recognize and mitigate these risks so as to ensure that new technologies can be used for the benefit of all.

Appendix 1 offers a list of examples of topics relevant to the theme. Applicants may choose to develop one of them or to propose a different topic of their own. This list is by no means exhaustive and is simply provided for inspiration. What is critical, however, is that the topic of this year's Research Grant shows originality and adds to the existing body of available research. Appendix 2 includes a series of relevant materials and webpages that can be of benefit to connect the theme with pre-existing work.

3. Eligibility criteria

To be eligible for the research grant, the applicant(s)* must be:

- Currently enrolled in postgraduate studies or a post-doc at an institution of higher education or a public research organization;
- Able to demonstrate the relevance of standardization to their field of study;
- Proficient in English (the study must be written in English).

^{*}a joint proposal can be made by more than one person, provided that all applicants fit the above criteria. In the case of joint proposals, only one grant will be awarded.

4. Timeline

Milestone/steps	Date
Call for research proposals launched	1 March 2023
Deadline to submit research proposals	16 June 2023 23:59 (CEST)
Expected evaluation of proposals (including references)	June-July 2023
Announcement of winning proposal	31 August 2023 (at the latest)
Deadline for submission of the final research to ISO	31 December 2024

5. Proposal elements and structure

Proposals for the ISO Research Grant must contain three elements:

- 1. Letter of motivation Include, for example, your reasons for applying, your inspiration for the proposed study, why you are qualified to carry out this study and how you expect to benefit from it.
- 2. CV with referees (e.g. supervisors)
- 3. Research proposal Following the structure outlined in the table below. <u>Please note: the proposal must not exceed 2,500 words, excluding references.</u>

Section	Guidance on content
Title	Provide a short, concise title that conveys what your research is about.
Abstract	Describe the topic and aims of the study. Provide a summary of who will be involved in the research, the methods, the timeframe and a statement explaining the relevance of the research.
Introduction	Explain why you chose this topic, how your proposed research is relevant to the theme and how it contributes to the body of knowledge on impact of standards (significance to the research field).
Research question(s)	What is the question you are trying to answer? The purpose of this research; why it needs to be done.
Literature review /state of knowledge	Give a brief summary of relevant existing research related to the topic (including potential gaps or limitations) and an indication of potential sources. Demonstrate your understanding of the topic and its wider context.
Methodology	What is the systematic approach you will use to solve your research problem?

Research design and methods	Provide detail about research participants, sources of data and methods of data collection, methods for data analysis and synthesis, limitations of the study.
Ethics	Are there any ethical concerns associated with your research proposal?
Communication of results	How will your research findings be shared? What is / are the foreseen research products?
Timeline	Estimate how long each task will take and show how you will complete your study in the given timeframe.
Detailed Budget	Indicate how the funds from the research grant will be allocated.
References	List of references used when writing the proposal.

6. How to apply

To apply for the ISO Research Grant, send your letter of motivation, CV and research proposal by email to research@iso.org before the **deadline of 23:59 (CEST) on Friday 16 June 2023**.

7. Selection criteria

The following selection criteria will be taken into account in selecting the grant winner.

Threshold criteria – proposals not meeting these criteria will not be given further consideration:

Domain	Criteria
Topic and	Project topic is clearly relevant to the theme – topic identifies a link between
project	International Standards and emerging technology risks or governance.
planning	Project budget is clear and calculations are correct.
Applicant	Applicant's academic/professional background is relevant to the topic and
background	proposed methodology.
and support	Applicant has the support of supervisors/appropriate referees.

Evaluation criteria – proposals meeting the threshold criteria will be assessed as follows:

Domain	Criteria	Weight
Quality of the project proposal	Soundness of the proposed methodology (including sufficient planning for access to data, outline of intended analytic approach, etc).	30%
	Originality/novelty of the topic and importance of the results to the existing body of research.	15%
	Utility of intended project outputs (eg. Full report, summaries, briefing points, etc).	5%
	Written communication skills: clarity of message, structure and logical flow of proposal.	20%

	Budget outline: proposed budget represents effective planning and expenditure. Budget should be transparent, detailed and demonstrate value for money.	10%
Experience and expertise	Breadth and depth of experience and expertise in the proposed subject area: quality and relevance of previous publications and academic background.	12%
Motivation	Motivation expressed by the applicant: stated reasons for applying, inspiration for the proposed study, expected benefits for the student.	8%

ISO will not, except at its own discretion, provide information about the evaluation process, or feedback on individual submissions.

8. ISO Central Secretariat (ISO/CS) involvement

The ISO/CS Research and Innovation unit is responsible for all aspects related to management and administration of the award. The successful applicant(s) will be expected to keep the ISO/CS Research and Innovation unit informed about the progress of the study (for example, by providing regular progress updates. A schedule of updates will be agreed on with the successful applicant(s) as appropriate for the project plan).

The ISO/CS Research and Innovation unit will provide guidance and support to the successful applicant(s) in the completion of the study as far as possible (for example, by commenting on outlines/drafts, and providing contacts within ISO members or ISO-related data).

9. Legal Disclaimer

By responding to this ISO research grant proposal, applicants agree that ISO reserves the right to withdraw it for any reason and, shall not in any way be responsible for any costs incurred in the preparation and presentation of the application.

10. Contact

Please contact <u>research@iso.org</u> if you have any questions or require further information about the ISO Research Grant.

11. Appendix 1: Research Examples

The following table contains possible topics for applicants to explore or take inspiration from. The list is by no means exhaustive and any original contributions that address the theme (standards and emerging technologies) and respect the established criteria will be considered equally.

CATEGORIES	FOCUS	EXAMPLES
IMPACT STUDIES	- Specific standard/group of standards - Theme: SDG targets, geographic focus	 Evaluate: the impacts of ISO XXXXX on Y the contribution of standard(s) XXXXX on Y how much/whether standards help promote good technological governance in (X sector; X geographic region) Note: impact studies could be quantitative, qualitative, or both
USE OF STANDARDS	- Specific standard/group of standards - Theme: SDG targets, geographic focus	 Choose one or more ISO standards and investigate who is using them, how and why (or why not) Explore the standards landscape in a sector, or a geographic region to see where ISO standards fit in - what other standards/guidelines are being used and where the gaps are
MARKET NEEDS	- Are current standards addressing market needs? - What new standardization opportunities exist?	 Select one or multiple challenges/risks that society could face as a result of emerging technologies: What is the potential role of standards to address these challenges? Do standards already exist to tackle those risks? What may be missing (standardization agenda)? What could be the limitations?
STANDARDS RELATIONSHIP DYNAMICS	Standards and regulations	 the connection between ISO standards and regulations in a chosen sector or geographic region. Are ISO standards referenced? What other standards/ guidelines are being used and where are the gaps? the role of ISO standards in helping drive cyberresilience. What standards are being used and at which level (for example terminology, evaluation, reporting)? the relationship between regulatory compliance and international standards

Involvement of civil society and vulnerable people	 Assess the involvement of civil society and vulnerable people in the standardization process Evaluate the contribution of standards to a more equitable access to cyber-resilience / privacy-protection Investigate the awareness about/ access to/ use of standards in vulnerable countries, to protect vulnerable groups or small businesses. Are relevant standards used by those who need them most (how and why, or why not)?
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12. Appendix 2: Resources

Web pages and relevant ISO committees

<u>ISO Online Browsing Platform</u> - The OBP lets users partially access standards, providing key information such as introductions, scope, normative references, and bibliographies. Applicants may find this useful if choosing to focus their proposal on a specific standard.

<u>ISO Research Library</u> – The library offers a collection of research publications on standards and standardization.

<u>ISO Foresight Report 2022</u> – Part of ISO's foresight activities, this report presents key emerging trends to help us look more systemically at the long-term and encourage discussion and exchange within the ISO system about future opportunities for International Standardization.

ISO/IEC JTC 1/SC 42 Artificial intelligence

ISO/IEC JTC 1/SC 27 Information security, cybersecurity and privacy protection

<u>ISO/IEC TR 24028:2020 Information technology — Artificial intelligence — Overview of trustworthiness in artificial intelligence</u>

<u>ISO/IEC 27001:2022 Information security, cybersecurity and privacy protection – information</u> security management systems - requirements

Brochures and news articles

ISO - How tech giants are building cyber resilience

ISO – Ways to incorporate cyber resilience in your business

ISO – It's all about trust

ISO - To ethicize AI or not to ethicize

ISO – Protecting privacy and consent online

ISO – Safe, secure and private, whatever your business (ISO/IEC 27009)

ISO – Data privacy by design: a new standard ensures consumer privacy at every step