AI SINGAPORE RESEARCH PROGRAMME
GRANT CALL 2022

1. About the Programme

1.1 The AI Singapore (AISG) Research Programme supports research projects on a competitive basis across Singapore-based Institutes of Higher Learning (IHLs)[1] and Research Institutions (RIs)[2].

1.2 The objective of the Programme is to seed high-quality research efforts aimed at developing AI and adjacent technologies that will eventually contribute to the other pillars of AI Singapore.

1.3 The AISG funds must be used on AI research that is emphasised on novel and significant contributions in methodologies and algorithms, rather than domain-specific solutions.

1.4 Research ideas at the intersection of multiple disciplines are encouraged. The theme of the proposed research programme must be motivated by an important need or problem to be solved, rather than solely curiosity-driven. AISG Research Grant Call 2022 aims at funding multi-disciplinary AI applications reflecting novel ideas that are underexplored, and/or also have a clear and significant social impact.

2. Grant Call Visions

2.1 In the **AI Research Grant Call 2022** for proposals, AI Singapore invites proposals in advanced fundamental AI research towards the following AI visions:

2.2 **Vision One: Discriminating Information**

Advances in technology have enabled the rapid creation and dissemination of information, for instance, via social media. This ability to quickly reach mass audiences has the potential to impact individuals and society as a whole, sometimes adversely, should misinformation or disinformation be spread. For instance, in the recent COVID-19 pandemic, misinformation about the disease, potential treatments and vaccines could have resulted in adverse impact on the health of individuals or even the population in general. As another example, deepfakes could be used for manipulation, or even cause harm, when widely disseminated. AI systems can potentially help in detecting such

[1] *Institutes of Higher Learning (IHLs)*: National University of Singapore (NUS), Nanyang Technological University (NTU), Singapore Management University (SMU), Singapore University of Technology and Design (SUTD), Singapore Institute of Technology (SIT), Singapore University of Social Sciences (SUSS).
[2] *Research Institutions (RIs)*: A*STAR Research Institutes and CREATE entities.

misinformation/disinformation and assessing its impact on individuals and society, and the focus of this theme is to develop novel methods towards these goals.

The enabling research topics towards these goals are:

Enabling Research Topic	Description
Information authentication, bias, benchmarks, and evaluation	Defining disinformation: Whether a piece of communication is disinformation or not largely depends on the intention of the creator. How then can disinformation be appropriately defined for developing an AI system to discriminate it? Multimodality/Multilinguality: How can we leverage multimodal features in media for better detection, monitoring and prevention of misinformation? How can we develop systems that can handle multiple languages? Role of external knowledge: What is the role of external knowledge, and how can we best utilise it? Detection vs. prevention: How can AI be used not only for detection of misinformation but also for prevention of misinformation, such as through educating the general public? Use cases: The concrete, real-world use cases and benchmarks are urgently needed to drive the research. Evaluation against dynamically changing information: How can AI methods handle the uncertainty of ground truth that often comes with unverified information, since the ground truth may dynamically change when the event unfolds and new information keeps coming in?
Interpretation and generation	Robustness of detection systems: There are attacks designed to evade misinformation/deepfake detection systems. For example, there are many possible deepfake synthesis systems and it is not feasible to collect data from all of these. So, building in robustness and fast adaptation of systems to new attacks would help mitigate spread of such harmful information. Interpretability/explainability of detection systems: Can these systems identify specific features of the input (e.g., pixels in images or words in news text) that contain artifacts suggesting that the input has been manipulated? For example, for deepfake, this may involve identifying the pipeline of manipulations used to generate the deepfake. This would both aid detection algorithms and facilitate human-AI collaboration to better identify misinformation/deepfakes.

Enabling Research Topic	Description
	Source attribution: How can we design methods to identify which entity has generated the misinformation/deepfake? For misinformation propagated through online social networks, this may involve analysis of the propagation patterns in the social network graphs. Content Provenance and Authenticity.
Assessment of impact and user profiling	Early detection: To reduce the impact of the spread of misinformation, developing early detection methods is critical. Impact quantification: How to quantify the impact of mis/disinformation? Understanding of vulnerability: What makes someone vulnerable to misinformation? This may require an interdisciplinary approach with people from communication and computer science working together. Understanding of behaviours: For some malicious misinformation such as scams, the scammers perform a series of actions to deceive users. Understanding such scammer behaviours is important for detection and prevention.

2.3 Vision Two: Towards Human Omnitasking

Human multitasking can result in time wasted due to human context switching and becoming prone to errors due to insufficient attention. Advances in digitalization have enabled business processes to be conducted in virtual environments by leveraging human-AI collaborations. Human omnitasking is the concept that the AI technology that can split one's attention on more than one task or activity at the same time. For example, attend online virtual conferences on the phone while driving. AI systems can also assist a human user to rapidly shift attention between the tasks and perform the tasks well or even learn the behaviour of the human user and act as an avatar to imitate the user to response to multiple tasks. Multiple avatars can be the delegate on behalf of the human user to attend multiple virtual conferences/meetings/gatherings at the same time. Are they feasible? Are they desirable? The goal is to assist human workers to be able to perform tasks more efficiently, anywhere, anytime and increase his/her productivity by a margin.

Enabling Research Topic	Description
Multimodal understanding and	Given a particular situation and a history of what happened previously, how can AI systems optimally help a human worker "get

Enabling Research Topic	Description
summarization / Conversational NLP	up to speed"? For example, if a person steps out of a meeting for an urgent call, or leaves a real-time operation for a break, what should an AI assistant say, show or do, in the most economical and effective way, to help the person?
Cognitive state tracking / Common sense reasoning	Given a particular situation, what is a human user or worker likely to be thinking, feeling, wanting to achieve and planning to do next? In order to effectively assist a person in omnitasking, AI systems need to understand what people are experiencing and then complement them. What might the person have missed or forgotten? What do they already know and what else do they need to know or pay extra attention to?
Behaviour understanding / Personalization	Does a particular worker tend to make the same mistake repeatedly? Do they perform certain tasks in a sub-optimal way? Could an AI system replicate the person's task behaviour but perform it without mistakes or more quickly? Could lapses of attention be spotted and likely mistakes pre-empted?
Trustworthy and explainable AI / Human-AI collaboration	For humans to rapidly and effectively interact with one or more AI agents, there needs to be a certain level of trust and understanding. How can trust be built initially and how can level of trust be gauged? Once a certain level of trust is established, what can be adjusted or re-calibrated or sacrificed to increase the level of omnitasking for greater productivity?

2.4 Vision Three: Removing Unwanted Digital Footprints

AI systems are often trained on data collected from individuals, such as face images, medical records, and online interactions. As supported by recent privacy regulations such as GDPR, each individual has "the right to be forgotten", i.e., she may request all digital traces about her to be removed from an AI system, to prevent others from inferring or utilizing her information. To enable such individual rights, we need to develop technologies for (i) identifying and removing unwanted digital traces from AI systems and (ii) auditing and certifying the removal of such traces in AI systems.

Societal benefits: The technologies to be developed will enhance personal privacy protection, which is much needed in the era of big data. In particular, they will enable individuals to gain better control on where and how their data could be used, thus providing supports for data privacy legislations such as PDPA and GDPR. In addition,

they will improve the privacy guarantees of AI systems and help address the growing public concerns on the misuse of personal data in AI. Furthermore, they can also be applied to remove the influence of corrupted or malicious data in AI systems (e.g., adversarial instances that contaminate the training of an AI-based cybersecurity tool).

Enabling Research Topic	Description
Definition of unwanted footprints	How should we formally define unwanted footprints in AI models? How should we incorporate application- or domain-specific requirements in the definition?
Footprint removal algorithms	How to design algorithms for removing unwanted footprints in AI models? What theoretical guarantees can such algorithms provide? How to benchmark the practical performance of such algorithms? How to handle complex learning paradigms (e.g., deep learning and reinforcement learning)?
Footprint removal auditing	How can we verify that a footprint removal request has been carried out by an organization? Alternatively, how can an organization provide formal proofs of footprint removal?
Evaluation of organizational trustworthiness	How can we monitor an organization's digital footprint removal efforts over time to determine its overall compliance and trustworthiness?

2.5 Vision Four: AI for Science

Scientific discoveries in the past decades have advanced our understanding of natural world, shedding light on everything from the evolution of stars, species of human ancestors, and discoveries of materials. Recently, there has been a growing interest in applying AI to accelerate scientific discoveries. For example, AI has been applied to automatically discover hidden state variables of physics phenomena. DeepMind's AlphaFold has successfully predicted 3D structure of nearly all proteins known to science, accelerating innovation in drug discovery and biology. On one hand, AI has tremendous potential to impact science at the fundamental levels and revolutionize current practices. On the other hand, the gaps and open questions for AI fundamentals to apply to scientific discoveries remain unclear. AI for science remains largely unexplored.

Enabling Research Topic	Description
AI for natural law extraction and understanding	How can AI extract relevant latent features from high-dimensional data (e.g., videos, microscopy)? Examples: Method extracts state variables directly from video representations via a neural network with bottleneck latent embeddings; geometric manifold method to estimate intrinsic dimensionality. How can AI extract physical laws from observations? Examples: Accelerated symbolic regression by exploiting graph modularity and symmetries in expressions; Monte Carlo sampling on manifold to identify dimensionality and conservation laws. How to design AI models that are interpretable and can lead to insights? Examples: Use of gradient saliency to interpret found relationships through supervised learning models; SMILES representation with machine learning regression; automated anomaly detection and insights from experiments
Foundational AI models for fast, accurate, large-scale scientific discovery	How to train effective data-driven simulators for physical problems? Examples: Design new architecture to embed known inductive biases, recycling to improve prediction, and learning unlabelled sequences using self-distillation. How to reduce simulators' computational cost? Examples: New architecture to incorporate multiple scales; integration of supervised ML-derived variables into numerical solver for correction and interpolation. How to maintain long-time stability and generalizability for dynamical systems? Examples: Physics-based constraints for neural networks, neural operators to improve generalizability even with less data.
AI for inverse design in science	How to automate the design of molecules/materials based on specific desirable properties (e.g., chemical)? Examples: Generation of molecular graphs using deep generative modelling that maintains chemical validity; AI models that are trained to generate molecules by learning the probability of the generation process of a large set of chemical structures; derivative-free/zeroth order optimization. How to design derivative-free/zeroth order optimization strategies for inverse design? Examples: Incorporating expert knowledge into the derivative-free/zeroth order optimization strategies, optimizing potential energy surfaces of chemical systems, discovering design patterns via data-mining techniques.

Enabling Research Topic	Description
	How to effectively explore large high-dimensional space for inverse design? Examples: Generative models for out-of-distribution molecules/materials/experiment exploration, optimization that achieves novel solutions with diverse characteristics.
AI that maximizes a priori knowledge	How to design AI models that can be informed of physics by observational biases (e.g., sampling), learning biases (e.g., Lagrangian constrained loss function, transfer learning), or inductive biases (e.g., conjoint networks)? Examples: Utilizing analogies/knowledge from few and many body systems in quantum physics, Hamiltonian systems in classical physics; Explaining NN with optimization/physics-derived insights. How to optimize and train AI models effectively given complex relationships and/or hard constraints that severely impact optimization? Example: non-L2 norms in pathology.
AI for data-sparse science	How can knowledge be maximized under resource constraints? Examples: Transfer learning methods; continual learning; new optimization algorithms for efficient sampling, especially with vast, discrete input spaces; representation learning in a small data regime.
Learning representations for scientific creativity	How to effectively explore large high-dimensional space for novel discoveries/experimental setups? Example: Creative adversarial networks to generate novel combinations, constraining generative models to produce out-of-distribution yet meaningful solution prototypes, exploration of creative compositions of primitive building blocks.
AI for quantum science	How can AI assist with high-dimensional optimization challenges? Examples: AI methods for quantum theory: searching of optimal parameters for quantum algorithms over infinite dimensional Hilbert space and quasi-probability functions with exponential scaling complexity; AI methods for quantum experiment: mapping desired states/operations onto quantum hardware given noisy logic gates and one to infinitely many functions; AI as the next generation of feedback control for complex systems.

2.6 Each proposal should **address one of the four visions listed above**. Alternative visions **will not be considered for evaluation.** We highly encourage proposals to have a clear research focus of a single vision.

3. Funding Support

3.1 The Programme will support each proposal for a duration of up to 5 years. Extensions beyond 5 years are will **not** be possible. Funding of each proposal will be **capped at a maximum of S$5 million** for high-impact projects requiring large-scale collaboration and integration. The total funding is inclusive of 30% IRC.

Funding (inclusive of 30% IRC)	Remarks
Up to $5,000,000	For high-impact projects requiring large-scale collaboration and integration

3.2 The proposal should be based on a realistic budget with appropriate justifications that correspond to the scope of work to be accomplished. The total cost of each project includes all approved direct costs[3] and indirect research costs/overheads[4]. All expenditure budgeted should be inclusive of any applicable Goods and Services Taxes (GST) at the prevailing rates.

3.3 Please refer to **Annex A – Guidelines for the Management of Research Grants (AI Singapore)** (external attachment), including the list of "Non-fundable Direct Costs".

3.4 For all direct cost items proposed for the project, please note that:

i. Host Institutions must strictly comply with their own procurement practices;
ii. Host Institutions must ensure that all cost items are reasonable and are incurred under formally established, consistently applied policies and prevailing practices of the host institution; and
iii. All items/services/manpower purchased/engaged must be necessary for the R&D work.

3.5 PIs/Co-PIs/host institutions shall use reasonable efforts to employ or otherwise engage Singapore citizens and/or Singapore Permanent Residents to be deployed in the work under the project.

[3] Direct costs are defined as the incremental cost required to execute the project. This **excludes** in-kind contributions, existing equipment and the cost of existing manpower as well as building cost. Supportable direct costs can be classified into expenditure on manpower (EOM), expenditure on equipment (EQP), other operating expenses (OOE), overseas travel (OT), and research scholarship (RS).
[4] Indirect costs are expenses incurred by the research activity in the form of space, support personnel, administrative and facilities expenses, depending on the host institution's prevailing policy. Host institutions will be responsible for administering and managing the support provided by AI Singapore for the indirect costs of research. This will not be applicable to research scholarship.

4. Eligibility Criteria

4.1 At the point of application, PI must fulfil the following requirements:

i. Hold a full-time appointment[5] in a Singapore-based Institute of Higher Learning (IHL), or Research Institute (RI);
ii. Must be an expert in AI domain; an AI expert is defined as a person with strong track record of publications from AI conferences and journals; and
iii. Must be an independent researcher with a track record of leadership ability in coordinating research programmes and providing mentorships to research team, as well as having productive research outcomes.

4.2 At the point of application, **Co-PIs** must fulfil the following requirements:

Hold a full-time appointment in a Singapore-based Institute of Higher Learning (IHL) or Research Institution (RI).

4.3 Researchers from Medical Institutions[6], AI Start-ups in Singapore, private sector and other entities are eligible to apply as Collaborators.

4.4 Only research conducted in Singapore may be funded under the Programme. Please refer to **Annex C – AI Singapore Research Programme Terms and Conditions** (external attachment).

5. Selection Process and Evaluation Criteria

5.1 Proposals are selected and evaluated based on:

i. **Scientific Quality** as conveyed through the proposal's framing of the challenge to be addressed, current state-of-the-art methods, and the new approach proposed etc.
ii. **Novelty of research directions** that challenge current understanding or provides pathways to new frontiers.
iii. **Feasibility / Viability / Appropriateness**. Can the proposal's objectives be reasonably achieved through the plan described?
iv. **Suitability and track record of PI and research team.**
v. **Impact to the field of AI.** This could be demonstrated in terms of the conferences and

[5] Defined as at least 9 months of service a year based in Singapore or 75% appointment.
[6] Researchers from Medical Institutions in Singapore who hold at least 25% joint appointment in a Singapore-based Institute of Higher Learning (IHLs) and/or Research Institution (RI) may apply as PI or Co-PI. If awarded, the grant will be hosted in the IHL/RI.

journals the research team intends to publish, intellectual property produced, technologies deployed, manpower trained/spun off to industry and overall value-add to target groups.

vi. **Resources Requested** and their suitability/appropriateness for the planned research.

5.2 Proposals will be assessed by the AI Research Pillar Scientific Committee / AISG International Advisory Panel, and AI Singapore.

5.3 All decisions are **final** and no appeals will be entertained.

6. Grant Call Timeline

6.1 The schedule for **the AI Research Grant Call 2022** is as follows:

Event	Dates
Announcement of Grant Call	5 December 2022
Opening date for softcopy submission (via portal)	5 January 2023
Closing date for endorsed softcopy submission (via portal)	28 March 2023
Evaluation and Selection of Proposals[7]	April to January 2024
Release of Outcome and Award	23 February 2024
Project Commencement	1 April 2024

7. Application / Contact

7.1 The AI Singapore Research Grant Call Application Portal for proposal submission is available from **5 January 2023** on https://grantportal.aisingapore.org/, alternatively, it is also accessible through https://aisingapore.org/research/grant-call/.

7.2 All applications are required to be submitted through the Application Portal. Email submissions will not be accepted unless exception is granted by AI Singapore.

7.3 Interested applicants should submit the Grant Call application form with all the sections

[7] Evaluation and Selection of Proposals were extended due to the unforeseen challenges in arrangement of an international panel.

duly filled by the stipulated deadline in two formats:

i. Input values through the portal fields, and;
ii. AI Singapore Application Form (PDF) and Annexes (PDF) in ZIP form.

7.4 Only complete applications with the endorsement of the relevant institutional authority / director of research (or equivalent), will be accepted by AI Singapore.

7.5 Each eligible institution[8] must follow the quota below:

i. For Research Teams with PI and all Co-PIs from the same institution,
- no more than four (4) applications each for NUS, NTU, and A*STAR;
- no more than two (2) applications each for SMU, SUTD, SUSS, SIT, and CREATE entities.

ii. For Research Teams with PI and Co-PIs from multiple institutions (2 or more institutions),
- no more than five (5) applications each for NUS, NTU, and A*STAR;
- no more than four (4) applications each for SMU, SUTD, SUSS, SIT and CREATE entities

7.6 Subject to the above criteria, for a combination of single and multiple-Institution proposals, each Institution may only submit:
- no more than five (5) applications each for NUS, NTU, and A*STAR;
- no more than four (4) applications each for SMU, SUTD, SUSS, SIT and CREATE entities

7.7 The table below summarizes the submission limit:

Submission Quota	**No. of proposals per institution**		
	Single Institutions	Multiple Institutions	Maximum Submission (Combination)
NUS/ NTU/ ASTAR	4	5	5
SMU/ SUTD/ SUSS/ SIT/ CREATE entities	2	4	4

[8] Applicable to Institutes of Higher Learning (IHLs): National University of Singapore (NUS), Nanyang Technological University (NTU), Singapore Management University (SMU), Singapore University of Technology and Design (SUTD), Singapore Institute of Technology (SIT), Singapore University of Social Sciences (SUSS) and Research Institutions (RIs): A*STAR Research Institutes, CREATE entities.

7.8 Late submissions or submissions from individual applicants without endorsement from the relevant institutional authority / director of research (or equivalent) (by the deadline stipulated above) will not be entertained.

7.9 For more information, please contact research@aisingapore.org.

8. Instructions to Applicants & Host Institution

8.1 Please note that **respective institution's application deadline may differ** from AI Singapore's deadline.

8.2 PI and Co-PIs are required to provide their Google Scholar and/or DBLP in the application form (not mandatory for Collaborators) and are expected to commit a proportionate amount of their time to the project (at least 20% of the total time for PI and at least 10% for Co-PIs).

8.3 Please note the following instructions on specific information to be provided in the relevant sections of the application form:

8.3.1 Section 1 - Cover Sheet

This section should state clearly the time commitment of each team member (PI/Co-PIs and Collaborators). All PIs and Co-PIs must provide their Google Scholar and/or DBLP identifiers (refer to https://dblp.uni-trier.de/).

8.3.2 Section 2 - Details of Research Proposal

A paper proposal with **a limit of 10 pages** (including Executive Summary) in size 11-point Arial font with full justified margins, single-line spacing. **Applications failed to follow the prescribed format may be rejected without a review**.

The case for support should include the following sections and information specified in the following table:

Sections Required	**Information to be Provided**
Executive Summary	Maximum of 500 words summarizing the project proposed, written for the understanding of individuals not trained in the scientific field. This summary should be written in relatively simple and non-technical language.
Research Objectives	This section should articulate clearly the use-inspired objectives, expected outcomes of the project, and a striking vision of major downstream benefits to society.

Sections Required	Information to be Provided
State of Current Research	How is it done today, who are the leading researchers studying the targeted problem/objectives, and what are the limitations of their current approaches?
Proposed Approach, Project Plan, Role of Team Members	• Details should be provided on the scientific challenges to be addressed and the proposed methodology/approach to solving these challenges. • PI/Co-PIs should highlight in this section the importance of the problems being addressed, how their work would create new knowledge or advance existing understanding, the novelty of their proposed approach and the potential for this to produce breakthrough work. • Explanation on the financial and human resources required to accomplish the objectives, the project schedule and the mitigation of risks should be included. • The PI, Co-PIs and other team members should also be identified in this section, highlighting any competitive advantages of individual members in terms of unique capabilities and/or experience relevant to the project's focus. • This section should also be used to highlight the international competitiveness of the work being carried out in terms of merit with mentions of existing work being carried out by other teams around the world.
Outcomes and Deliverables	• A summary of the deliverables and outcomes for the project should be provided in this section. KPIs proposed should be linked to the objectives of the project and should be as quantitative as possible (e.g. a 2X improvement, or a specific achievement) – as a means to track/measure the success of the project at mid-term and at completion. • PIs should also use this section to highlight important potential/possible future outcomes from the successful execution of the project. • The detailed listing of KPIs should be provided in Section 5 of the application form.
Ethics Statement	*(Maximum 1 page, excluded from the 10-page limit. The description should not contain information that should otherwise be in the main proposal)* • This section should include statement of the potential negative ethical/societal impacts of the proposed research.

Sections Required	Information to be Provided
	Submissions should also provide description on how these risks can be mitigated, if identified.

8.3.3 Section 3 – Proposed Budget

PIs should fill in the detailed budget breakdown in this section of the form, broken down into the categories and sub-categories, mainly:

i. Expenditure of Manpower (EOM);
ii. Expenditure on New Equipment (EQP);
iii. Other Operating Expenses (OOE), with sub-categories for local conferences/ working visits/ meetings, materials and consumables (including animal costs if any), virtual conferences and miscellaneous costs or others; and
iv. Overseas Travel (OT), including overseas physical conferences/ working visits/ meetings.
v. Research Scholarships (RS). Note: RS category is not eligible for indirect costs.

Any additional information (e.g., equipment quotations, OOE details, etc.) should be provided as separate attachments. Further line item breakdown is required in sub-section of the application form (3.2: Detailed Breakdown & Justifications). Only details for the amount of funding sought under AI Singapore should be provided in this section; other sources of funding for the project should be indicated separately and clearly in the "Other Funding Support" section for AI Singapore's information. Please refer to **Annex A – Guidelines for the Management of Research Grants (AI Singapore)** (external attachment) for the list of direct cost items (non-exhaustive) that are non-fundable under AI Singapore.

8.3.4 Section 4 – Declaration of Other Funding Support

Details of all grants currently held or being applied for by the PI and Co-PIs listed on the cover page, in related areas of work, must be declared in this section.

Failure to do so will be considered a breach of the undertaking required by all PI and Co-PIs in Section 7 of the application form and may render the application invalid. Please refer to **Annex C – Declaration of Other Funding Support Supplementary in the application form** for reference.

8.3.5 Section 5 – Performance Indicators

PIs should provide full details of the KPIs for their project.

8.3.6 Section 6 – Names of Suggested International Reviewers

8.3.7 Section 7 – Declaration by Grant Applicants

8.3.8 Section 8 – Endorsement by the Host Institution

8.3.9 Annex A – Project Implementation Schedule

PIs should provide full details of the project implementation schedule.

8.3.10 Annex B – Curriculum Vitae

The 2-page CVs of all PI, all Co-PIs and Collaborators listed on the cover page must be provided according to the format provided.

8.3.11 Annex C – Declaration of Other Funding Support Supplementary

PIs should provide details of other funding support.

8.4 Proposals submitted should contain all relevant information required for a proper and complete evaluation of their merits without the need to go back to applicants for additional information. Relevant privileged or confidential information should be disclosed if necessary to help convey a better understanding of the proposed project. However, such information should be clearly marked in the proposal.

8.5 Appendices should contain supporting diagrams, references and Gantt chart to illustrate the points mentioned in Section 2. However, **elaboration of proposals' contents within appendices will not be reviewed.**

8.6 A complete set of signatures may be provided using multiple copies of Section 7 (the undertaking section) of the application form. The softcopy submission will be taken as the final and complete version of the proposal.

8.7 Submissions which are incomplete (e.g., missing Google Scholar and/or DBLP identifiers, missing host institution endorsement) or not received by the close of the relevant call will not be considered.

8.8 Research support office from the IHLs and/or Research Institutions are required to ensure that information submitted by their researchers complies with the requirements outlined in the application guideline. The following **will be rejected without review:**

i. Missing or wrong version of application form.
ii. Inappropriate format (e.g. small font size and tight para spacing) or incomplete applications (e.g. sections left blank, missing CVs, etc.).
iii. Late submission.
iv. Revisions, made after closing date.

v. Proposal not within vision/scope.
vi. Duplicates of proposal submitted to any other public funding agencies for simultaneous consideration.
vii. Ineligibility of PI and/or Co-PIs.

8.9 PI and Co-PIs should note that parallel submissions are not allowed – i.e. applicants must never send similar versions or part(s) of the current proposal application to other agencies or grants for funding (or vice versa).

8.10 The budget for the research proposal should be prepared according to the guidelines stipulated by the AI Singapore Research Programme and the applicant's host institution/research institute.

8.11 **General Ethical Conduct.** Researchers and research institutions should recognise that they have an ethical obligation to weigh societal benefits against risks inherent in their work. All research must be conducted responsibly and honestly. Please refer to own institution's guidelines on ethical conduct/research integrity.

9. Terms & Conditions of Award

9.1 Funding from AI Singapore will be awarded to and managed by the Host Institution of the PI and/or Co-PI. No part of AI Singapore funding will be awarded to Collaborator(s).

9.2 AI Singapore will disburse funds on a reimbursement basis. Host institutions shall submit requisitions for direct and/or indirect costs for which the funding is permitted to be used **to AI Singapore on a half-yearly basis** using the forms provided. Requisitions shall include detailed schedules of expenditure incurred for the previous period, as certified by its chief financial officer or an authorised nominee.

9.3 No funds shall be disbursed for approved projects unless:
i. The relevant research collaboration agreements (where applicable) have been signed.
ii. The respective research compliance approvals (where applicable) have been obtained from the appropriate board/office.

9.4 The Host Institution is required to submit to AI Singapore a **Yearly Progress Report** within (1) month from the end of each relevant Financial Year (by 30 April). The Host Institution is also required to provide details on **Top 5 works of impact** from the individual projects (Top 3 for first year of project funding) – **including supplementary presentation slides** – as part of the yearly progress reporting. For each work, give (a) title, (b) full citation details, (c) description of significance/impact.

9.5 AI Singapore shall, as the grantor, **have the right to request for additional project review materials** from the Host Institution. The Host Institution shall submit further information as requested by AI Singapore, if the project review materials are deemed inadequate or

unsatisfactory. AI Singapore shall also **have the right to request for the PI and/or Co-PI to present on their project's progress and impact** at respective meetings as specified by AI Singapore or its grantors.

9.6 The detailed terms and conditions applicable to the grant will be attached during the award.

ANNEX A: GUIDELINES FOR THE MANAGEMENT OF RESEARCH GRANTS (AI SINGAPORE)

ANNEX B: INSTRUCTIONS TO INSTITUTION'S APPOINTED AUDITOR ON FINANCIAL AUDIT (RESEARCH)

ANNEX C: AI SINGAPORE RESEARCH PROGRAMME TERMS AND CONDITIONS