



## AI SINGAPORE RESEARCH PROGRAMME KICKSTARTER GRANT CALL 2019

### About the Programme

1. The AI Singapore Research Programme supports research projects on a competitive basis across Singapore-based Institutes of Higher Learning (IHLs)<sup>1</sup> and Research Institutions (RIs)<sup>2</sup>.
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.
3. This Kickstarter Grant Call targets to provide a platform for AI researchers within Singapore to explore innovative ideas, with the potential to be developed into Full Proposals for large-quantum grant calls.
4. Specifically, Kickstarter Grant Call 2019 aims at funding multi-disciplinary applications reflecting novel ideas/visions that are underexplored, and/or also have a clear and significant social impact.
5. The following are suggested areas; **all other AI research areas are welcomed** :-
  - i. Trustworthy AI
  - ii. Privacy-Aware AI
  - iii. Collaborative AI
  - iv. Resource Efficient AI
  - v. Life Long Learning AI
6. Proposals should emphasise novel and significant contributions in methodologies and algorithms, rather than domain-specific solutions.
7. Successful applications will be expected to submit applications to NRF Competitive Research Programme (CRP) / MOE AcRF Tier 3 and its equivalent grant calls. Otherwise, a report, detailing why the initial proposed approach is not feasible, is required.

<sup>1</sup> *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).

<sup>2</sup> *Research Institutions (RIs)*: A\*STAR Research Institutes, CREATE entities, Fraunhofer Singapore.



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## Funding Support

1. The Programme will support each project for a duration of up to 1 year. Funding of \$100,000 (inclusive of 20% IRC) is available.
2. The Programme encourages inter-institutional collaborations.
3. 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<sup>3</sup> and indirect research costs/overheads<sup>4</sup>. All expenditure budgeted should be inclusive of any applicable Goods and Services Taxes (GST) at the prevailing rates.
4. Please refer to **Annex B** for Guidelines for the Management of Competitive R&D Grants under AI Singapore Programme, including the list of “Non-fundable Direct Costs”.
5. 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.
6. 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.
7. Decision on the funding support to be awarded for each project is final and no appeals will be entertained.

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<sup>3</sup> 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), and overseas travel (OT).

<sup>4</sup> 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.



## Eligibility Criteria

1. At the point of application, **PI** must fulfil the following requirements:
  - i. Hold a full-time appointment<sup>5</sup> in a Singapore-based Institute of Higher Learning (IHL), A\*STAR Research Institute, or Fraunhofer Singapore<sup>6</sup>;
  - ii. Must have the background/qualifications in AI knowledge;
  - 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; and
  - iv. No outstanding report(s) from other national grants.
2. At the point of application, **Co-PIs** must fulfil the following requirements:
  - i. Hold a full-time appointment in a Singapore-based Institute of Higher Learning (IHL) or Research Institution (RI); and
  - ii. No outstanding report(s) from other national grants.
3. Researchers from Medical Institutions<sup>7</sup>, AI Start-ups in Singapore, private sector and other entities are eligible to apply as Collaborators.
4. Only research conducted in Singapore may be funded under the Programme.

## Evaluation Criteria

1. AI Singapore supports research that has academic significance and demonstrates good potential for achieving the desired outcomes of creating and/or developing AI and adjacent technologies towards more human-like learning machines.
2. The research outcomes should advance high-quality research of international excellence that challenges current understanding or provides pathways to new frontiers.
3. Further, the Programme supports research that has or will have direct implications on the economy and/or society.
4. **Multi-disciplinary proposals** will be favourably considered.

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<sup>5</sup> Defined as at least 9 months of service a year or 75% appointment.

<sup>6</sup> Researchers from Fraunhofer Singapore must submit a multi-institutional proposal with a Co-PI from a Singapore-based Institute of Higher Learning (IHL) or A\*STAR Research Institute.

<sup>7</sup> 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.



5. Proposals will be assessed by a Scientific Committee and AI Singapore.
6. All decisions are **final** and no appeals will be entertained.

### Grant Call Timeline

The schedule for the **Kickstarter Grant Call 2019** is as follows:

Event	Dates
Grant Call opens	16 April 2019
Closing date for <u>endorsed softcopy</u> submission (via email)	21 May 2019
Evaluation & Selection	May - July 2019
Release of Outcome and Award	August 2019
Project Commencement	1 Oct 2019

### Application / Contact

1. All applications are required to be submitted in softcopy to [research@aisingapore.org](mailto:research@aisingapore.org) using the application form provided, by **21 May 2019, 4pm**.
2. Only complete applications with the endorsement of the relevant institutional authority / director of research (or equivalent), will be accepted by AI Singapore.
3. Each eligible institution must follow the quota below:
  - no more than three (3) applications each for NUS, NTU, and A\*STAR;
  - no more than two (2) applications each for SMU, SUTD, SUSS, SIT and Fraunhofer Singapore.

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.

For more information, please contact [research@aisingapore.org](mailto:research@aisingapore.org).



### Instructions to Applicants & Host Institution

1. Please note that respective institution's application deadline may differ from AI Singapore's deadline.
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.
3. Please note the following instructions on specific information to be provided in the relevant sections of the application form:-

#### 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/>).

#### Section 2 - Details of Research Proposal

A white paper proposal with a limit of 5 pages (excluding cover sheet) in size 11-point Arial font with full justified margins, single-line spacing. The case for support should include the following sections and information specified in the following table:-

Sections Required	Information to be Provided
Lay Abstract	Maximum of 300 words summarizing the project proposed, written for the understanding of individuals not trained in the scientific field. This abstract should be written in relatively simple and non-technical language.
Research Objectives	This section should articulate clearly the use-inspired objectives and expected outcomes of the project.
Proposed Approach, Project Plan, Role of Team Members	<ul style="list-style-type: none"> <li>• Details should be provided on the scientific challenges to be addressed and the proposed methodology/approach to solving these challenges.</li> <li>• 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.</li> <li>• Explanation on the financial and human resources required to accomplish the objectives, the project schedule and the mitigation of risks should be included.</li> </ul>



Sections Required	Information to be Provided
	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul>
Potential Application and Scalability of the Project	<ul style="list-style-type: none"> <li>• There should be clear indication of how the project would be actionable and scalable for projects under large-quantum grant calls.</li> <li>• This section should be used to describe the contributions of the project in terms of potential economic and other benefits to Singapore.</li> <li>• PIs should also use this section to highlight important potential/possible future outcomes from the successful execution of the project.</li> </ul>

**Section 3 – Proposed Budget**

PIs should fill in the detailed budget breakdown in this section of the form, broken down into the following broad categories, mainly: (a) expenditure on manpower (EOM); and (b) other operating expenditure (OOE). Please refer to **Annex B** for the list of direct cost items (non-exhaustive) that are **non-fundable** under AI Singapore.

**Section 4 – 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.

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.

A complete set of signatures may be provided using multiple copies of Section 5 (the undertaking section) of the application form. The softcopy submission will be taken as the final and complete version of the proposal.



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

4. 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:
  - a. Missing or wrong version of application form.
  - b. Inappropriate format (e.g. small font size and tight para spacing) or incomplete applications (e.g. sections left blank, missing CVs, etc.).
  - c. Late submission.
  - d. Revisions, made after closing date.
  - e. Proposal not within scope.
  - f. Duplicates of proposal submitted to any other public funding agencies for simultaneous consideration.
  - g. Ineligibility of PI and/or Co-PIs.
5. 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).
6. 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.



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### Terms & Conditions of Award

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).
2. The detailed terms and conditions applicable to the grant are specified in the document, entitled "Terms and Conditions of the AI Singapore Research Programme", attached as **Annex A**.
3. 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.
4. No funds shall be disbursed for approved projects unless:
  - a. The relevant research collaboration agreements (where applicable) have been signed.
  - b. The respective research compliance approvals (where applicable) have been obtained from the appropriate board/office.





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**ANNEX A: TERMS AND CONDITIONS OF THE AI SINGAPORE RESEARCH PROGRAMME**

**ANNEX B: GUIDELINES FOR MANAGEMENT OF COMPETITIVE R&D GRANTS (AI SINGAPORE)**

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