AI SINGAPORE RESEARCH PROGRAMME ACCELERATED MASTERS PROGRAMME 2024

1. About the Programme

1.1 The AI Singapore (AISG) Research Programme supports top artificial intelligence (AI) research talent intending to pursue full-time Masters (Research) studies in Singapore-based autonomous universities (AUs)[1].

1.2 The objective of the programme is to nurture and foster local AI talent interest in advanced fundamental AI research, enabling students to expedite their academic research pursuits by completing a Masters by Research degree within a year after graduating from their undergraduate studies. Eventually, we hope that these talents will contribute to the other pillars of AI Singapore, the local AI eco-system and the society.

1.3 The AISG Accelerated Masters Programme is open to Singaporean applicants. AISG Accelerated Masters Research awardees will be provided with an allowance of S$2,000 monthly during their undergraduate period for up to a year and a competitive stipend of S$3,500 monthly during their Masters for up to a year. Additionally, the awardees will benefit from conference allowances and full tuition fees coverage for their Masters studies, hence the award is up to a total of two years of study at Singapore-based AUs.

1.4 AISG Accelerated Masters Research awardees are strongly encouraged to pursue novel fundamental AI research of significance, ideally aiming to publish their research outcomes at the top-tier AI venues, as defined by AISG, from the point of award until their Masters' candidature period concludes.

1.5 Interested applicants with strong interest in advancing the state of the art in AI fundamental research are highly encouraged to apply for the AISG Accelerated Masters Programme.

2. Accelerated Masters Research Focus Areas

2.1 AISG Accelerated Masters Research awardees supported by the AISG Accelerated Masters Programme are highly encouraged to conduct advanced fundamental AI research in the following themes:

2.1.1 Theme One: Collaborative AI

This theme centres on advancing the **state of the art in collaborative AI;** the following

[1] *Autonomous Universities (AUs)*: National University of Singapore (NUS), Nanyang Technological University (NTU), Singapore Management University (SMU), Singapore University of Technology and Design (SUTD).

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examples are sub-topics of interest:

i. Human-AI Collaboration or AI-AI Collaboration
ii. Knowledge Representation
iii. Transfer Learning

2.1.2 Theme Two: Trustworthy and Explainable AI

This theme centres on advancing the **state of the art in trustworthy or explainable AI;** the following examples are sub-topics of interest:

i. Accountability in Intelligent Systems
ii. Safe, Fair and Robust AI System Development
iii. Transparent or Explainable AI System Development
iv. Explainability and Trust (Safe, Fair, Robust) Assessment

2.1.3 Theme Three: Resource-Efficient AI

This theme centres on advancing the **state of the art in resource efficient AI;** the following examples are sub-topics of interest:

i. Learning from Small Data Sets
ii. AI Understanding of Design and Creation
iii. Human AI Co-Design
iv. Knowledge Representation with Complex Priors or Measurements

2.1.4 Theme Four: Privacy-Aware AI

This theme centres on advancing the **state of the art in privacy-aware AI;** the following examples are sub-topics of interest:

i. Federated Learning
ii. Privacy-Aware AI Algorithms

2.1.5 Theme Five: Continuous Learning AI

This theme centres on advancing the **state of the art in Continuous Learning AI;** the following examples are sub-topics of interest:

i. Self-Supervised Learning
ii. Lifelong Learning

2.2 Each AISG Accelerated Masters Research awardee is highly encouraged to **address one of the five AI themes listed above**. The AISG Accelerated Masters Research awardee is **not limited to the proposed sub-topics**. AISG Accelerated Masters Research awardees are encouraged to have a clear research focus on a single theme instead of multiple themes.

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2.3 AISG Accelerated Masters Research awardees will only be allowed to pursue alternative AI themes **if s/he has exceptional credentials[2] and/or strong interest[3] in a particular AI fundamental research area.** Approval from the AI Research Management is required for AISG Accelerated Masters Research awardee to pursue an alternative theme.

2.4 For any changes in the research theme, regardless among the themes listed or alternative themes, the AISG Masters Research awardee is required to inform AI Singapore in writing.

3. AI Accelerated Masters Programme Details

3.1 Coverage and Post-Graduation Obligations

3.1.1 The AISG Accelerated Masters Programme will support each AISG Accelerated Masters Research awardee for a duration of up to two (2) years of studies, one (1) year in Undergraduate and one (1) year in Masters:

i. [During Undergraduate] Monthly living allowance of up to S$2,000;
ii. [During Masters] Monthly sustenance allowance of up to S$3,500 with CPF contribution[4];
iii. [During Masters] Full local tuition fees; and up to S$2,000 for Masters' dissertation research project.
iv. [During Undergraduate and Masters] Conference travels[5].

3.1.2 AISG Accelerated Masters Research awardees pursuing an AI-related full-time Undergraduate and eventually a full-time Masters (Research) in Singapore-based Aus are eligible for funding under the AISG Accelerated Masters Programme after evaluation by AISG. The exact funding period may vary between individual Undergraduates as it is dependent on the applicant's (expected) Undergraduate graduation. There is **no funding support** for

i. Applicants currently pursuing an AI-related Undergraduate in an overseas AU;
ii. Applicants intending to pursue an AI-related Masters (Research) in an overseas AU.

[2] An AISG Accelerated Masters Research awardee with exceptional credentials has a track record of publishing in top-tier AI conferences/journals as a main contributor (e.g., first author) or a strong academic track record (top 5% in undergraduate) at a top-tier university, and/or impactful AI projects completed.
[3] Strong interest is defined as research interest in an area explained through his/her research statement and past experience in research, together with a strong recommendation from his/her current UROP equivalent supervisor.
[4] Central Provident Fund (CPF) contributions shall be provided at a rate pegged to the prevailing employer's contribution rate set by CPF, which is on top of the monthly sustenance allowance. This is provided for Singaporeans only.
[5] Conference travel support is subject to AU's prevailing travel guidelines and AI Singapore's requirements on travel support.

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3.1.3 Overview of differences across various candidates:

	Monthly Living Allowance	CPF Contribution[5]	Tuition Fee	Research Allowance	Conference Travel Allowance[6]
Undergraduate Final Year (AMP Year 1)	S$ 2,000	No	No	No	Yes
Masters (AMP Year 2)	S$ 3,500	Yes	Yes (1 Year)	Yes (Up to S$2,000)	Yes

3.2 Deliverables from Awardees

3.2.1 Before his/her conferment of Undergraduate degree, AISG Accelerated Masters Research awardees are required to receive their Masters (Research) Admission Offers from their respective local AUs no later than three (3) months before the conferment of undergraduate degree.

3.2.2 Additionally, the AISG Accelerated Masters Research awardees are to complete and graduate from their Masters (Research) degree no longer than their eligible Masters candidature period.

3.2.3 Upon graduation from Masters, AISG Accelerated Masters Research awardees are required to pursue an AI-related PhD (locally or overseas) or take up an AI-related industry job. The AISG Masters Research awardees are required to share the relevant post-graduation[7] details and information for up to a year.

3.2.4 From the point of the award and until the end of Masters (Research) candidature, each AISG Accelerated Masters Research awardee is strongly encouraged to have at least one (1) publication published, with the awardee as the first/co-first author. The publications are required to be in the main/technical track of the conferences or journals listed in AI Singapore's latest "Top 10% NRF Approved List" or "Clarivate's Science and Technology" list. The publications are required to acknowledge AISG as per AISG's guidelines in order for the publication to be recognised as a successful count.

3.2.5 For publications to be considered, AISG Accelerated Masters Research awardees **MUST** include the acknowledgement statement strictly as follows:

Acknowledgement Statement – General

[6] Conference travel support is subject to AU's prevailing travel guidelines and AI Singapore's requirements on travel support.

[7] Post-graduation is defined from the day that the student has obtained the conferment of his/her Masters (Research) degree.

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"This research/project is supported by the National Research Foundation, Singapore under its AI Singapore Programme (AISG Award No: AISGX-AMP/202X-XXX).

Acknowledgement Statement – Multiple Funding Sources

For publications with multiple funding sources, the name of each source of funding are to be placed in order of the funding value (assuming that the maximum funding is from NRF Singapore, AI Singapore):

"This research/project is supported by the National Research Foundation, Singapore under its AI Singapore Programme (AISG Award No: AISGX-AMP/202X-XXX), <other funding source name> and <other funding source name>.

3.2.6 All publications published by AISG Accelerated Masters Research awardees are to be reported on a **half-yearly basis** from the point of the award by AISG until the Masters candidature concludes. If an AISG Accelerated Masters Research awardee continues into additional year(s) of Undegraduate degree and/or Masters degree without the support of AISG (prior to the date of degree(s) conferment), s/he is expected to acknowledge AISG in all publications (if any), and inform AISG of his/her research achievements up to the date of degree(s) conferment.

3.2.7 The AISG Accelerated Masters Research awardee will receive up to S$8,000 in travel grant support if s/he is the main/primary author of a paper in the top-tier list below. There is no restriction on the frequency of travel support for papers published in the top-tier list. This is to ensure Singapore's visibility and strong presence in top-tier AI conferences and to maintain Singapore's field-weighted citation impact.

3.2.8 The top-tier AI main/technical conferences suggested below are subject to annual revision by AI Singapore:

S/N	Acronym	Conference Title
1	AAAI	AAAI Conference on Artificial Intelligence
2	ACL	Annual Meeting of the Association for Computational Linguistics
3	CVPR	Conference on Computer Vision and Pattern Recognition
4	EMNLP	Conference on Empirical Methods in Natural Language Processing
5	ICCV	International Conference on Computer Vision
6	ICLR	International Conference on Learning Representations
7	ICML	International Conference on Machine Learning
8	IJCAI	International Joint Conference on Artificial Intelligence
9	KDD	SIGKDD Conference on Knowledge Discovery and Data Mining
10	NeurIPS	Conference on Neural Information Processing Systems

3.2.9 For other AI conferences listed within the "Top 10% NRF Approved List", the AISG Accelerated Masters Research awardee will receive up to S$2,000 in travel grant support.

The frequency of travel support is limited to two (2) conferences throughout the award period. This travel grant support is applicable only if s/he is the main author of his/her paper.

4. Eligibility Criteria

4.1 At the point of application, **the applicant** must fulfil the following requirements (i to v):

i. Begin its final undergraduate year[8] (Year Xth) in August/September 2025 or January 2026 with an AI-related Undergraduate programme in one of the following Autonomous Universities' (Aus) faculty/school:
   a. NUS School of Computing; and NUS College of Design and Engineering (Computer Engineering)
   b. NTU College of Computing and Data Science
   c. SMU School of Computing and Information Systems
   d. SUTD Information Systems Technology and Design Pillar

ii. Demonstrate AI research experiences and knowledge through:
   a. Completing[9]/Completed at least one (1) academic year[10] of an AI-related project in the Undergraduate Research Opportunities Programme (UROP) or equivalent research programme; **OR**
   b. Equivalent of AI research-based internship(s) or attachment(s) with an AI expert for at least nine (9) months; **OR**
   c. Publishing[11]/Published at least one AI publication in the fundamental main track of the AI conference[12] as the first or co-first author.

iii. Has obtained at least a Cumulative Average Point (CAP) of 4.0 out of 5.0 system or 3.2 out of 4.0 system.

iv. Intends to undertake an AI-related Masters by Research offered by their current enrolled faculties listed above in 4.1i.

v. The awarded AISG Accelerated Masters Research awardee must not be an existing scholarship holder at the start of Year 2 of the AISG Accelerated Masters Research award indicated by AI Singapore.

4.2 The final undergraduate year (Year Xth) in August 2025/September 2025 or January 2026 may be as follows:

i. Begins their final undergraduate year (Year 4, Semester 1) in August/September 2025, following the timeline of the majority of undergraduates; **OR**

ii. Taking on a Double Degree (undergraduate), resulting in a longer undergraduate

[8] Refer to Point 4.2 on the interpretation of final undergraduate year.
[9] Target to complete 1 academic year by the end of the current semester.
[10] One academic year is referred to as at least 9 calendar months.
[11] The publication has been accepted by the conference, but it has not been officially published as part of the conference proceedings yet.
[12] The conference must be within the AISG Top 10 top-tier conference listed in paragraph 3.2.8

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candidature; **OR**

iii. Intending to graduate early (3.5 years) due to an early accomplishment of necessary university graduation requirements; **OR**

iv. Other unique scenarios will be assessed on a case-by-case basis.

4.3 Other faculties/schools proposed beyond the list above is subject to AI Singapore's evaluation and assessment. The candidate must showcase his/her whole list of courses undertaken during their undergraduate years and his/her intention to undertake AI-related Masters by Research in the stated fields.

4.4 Any other unique plausible scenarios are subject to AI Singapore's evaluation and assessment. The applicant may proceed with his/her application but s/he may not be awarded upon the final assessment.

4.5 The table below shows an overview of the plausible scenarios of the AISG funding period:

AISG Accelerated Masters Programme Intake	**UG Applicant Scenarios**	**AISG Support**
2025	UG Final Year (Year 4, Sem 1): August 2025 *[Expected Graduation in August 2026]* + Master by Research Year: August 2027	AISG support will commence from: • Final year of UG studies (August 2025 until August 2026) • First year of Masters by Research studies (August 2026 until August 2027) **Total of <u>2 years</u> of consecutive funding starting from August 2025.**
	<u>Double Degree Scenario</u> UG Final Year (Year 4, Sem 2): January 2026 *[Expected Graduation in January 2027]* + Master by Research Year: January 2028	AISG support will commence from: • Final year of UG studies (January 2026 until January 2027). • First year of Masters by Research studies (January 2027 until January 2028). **Total of <u>2 years</u> of consecutive funding starting from January 2026.**
	<u>Early Graduation Scenario</u> UG Final Year (Year 3, Sem 1): August 2025 *[Expected Graduation in January 2026]* +	AISG support will commence from: • Final year of UG studies (August 2025 until January 2026). • First year of Masters by

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AISG Accelerated Masters Programme Intake	UG Applicant Scenarios	AISG Support
	Master by Research Year: January 2027	Research studies (January 2026 until January 2027). **Total of <u>1.5 years</u> of consecutive funding starting from August 2025.**
	<u>Other Scenario</u> UG Final Year (Year 3, Sem 1): August 2025 *[Expected Graduation in August 2026; Actual Graduation was in January 2026]* + Master by Research Year: *[Expected Commencement in August 2026; Actual Commencement was in January 2026]*	AISG support will commence from: • Final year of UG studies (August 2025 until January 2026). • First year of Masters by Research studies (August 2026 until August 2027). **Total of <u>1.5 years</u> of funding with a re-assessment if the award is to be continued and commence the first year of Masters funding early from August 2026 to January 2027.**

4.6 The above eligibility criteria are not exhaustive and AISG may include additional selection criteria based on prevailing award or scholarship policies. The AISG Accelerated Masters Research Programme terms and conditions may be amended from time to time based on AISG's grantor guidelines.

5. Selection Process and Evaluation Criteria

5.1 Applicants are selected based on their strong research interest in AI core technical areas and their motivation to do novel and significant AI research works and publish them in the top-tier AI conference/journals. Hence, a clear articulation of his/her proposed novel and significant research directions in his/her personal statement is important.

5.2 Applicants will also be assessed in terms of their **academic excellence and/or awards received** (academic and technical) as per the application submission.

5.3 Applicants with **(1) a strong interest in fundamental research** and/or **(2) relevant AI research projects involved in** and/or **(3) recommendation letters from established researchers and/or faculty members** will be favourably considered**.**

5.4 Applicants' intended supervisor(s) will also be considered within the evaluation based on their expertise in AI and suitability in the selected AI research direction.

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5.5 Applicants who are Singaporean will be considered.

5.6 All decisions are final and no appeals will be entertained.

5.7 AI Singapore reserves the right to disqualify, retract, or terminate the award if the application is found to be untruthful or if required documents are missing or a change in the supervisor and/or topics is made.

6. Accelerated Masters Programme Timeline

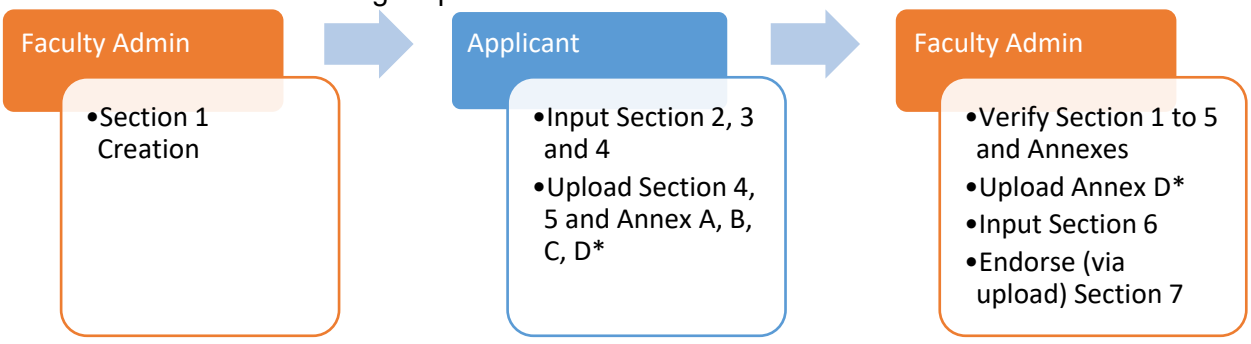
6.1 The schedule for the **Accelerated Masters Programme August 2025** is as follows:

Event (Accelerated Masters Call August 2025)	Dates
Announcement of Programme and Opening of Portal for Submission of Applicants / Candidates	9 June 2025
Closing date for Submission of Applicants / Candidates	26 June 2025
Evaluation and Selection of Applicants / Candidates	June-July 2025
Release of Outcome and Award	End-July 2025
Accelerated Masters Commencement (August 2025)	August / September 2025

7. Application / Contact

7.1 The AI Singapore **Accelerated Masters Programme** Application Portal is available from **6 June 2025** onwards at https://aiamp.aisingapore.org.

7.2 Individual Autonomous Universities (AUs) should submit the AI Singapore Accelerated Masters Programme application form with all the sections duly filled by the stipulated deadline in the following sequence:



*Annex D Recommendation Letter(s) is to be uploaded by the Applicant or Faculty Admin depending on the

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institution's process.

i. **[By Faculty Admin]** Create a basic account of the applicant details through the fields available (Section 1).
ii. **[By applicant]** Input values through the portal fields (Section 2, 3 and 4).
iii. **[By applicant]** Upload Details of Research Equivalent Experiences supplementary document (Section 4), individual personal statement (Section 5), and individual CV (Annex A) in separate PDFs.
iv. **[By applicant]** Upload education certificates (Annex B) and detailed awards and publications (Annex C) in separate PDFs within a zipped file.
v. **[By Faculty Admin]** Verify the details (Section 1 to 5, Annex A, Annex B and Annex C) and input value through the portal fields (Section 5) for transfer candidates. Upload the recommendation letters (Annex D) if available. Endorse and upload Section 6 endorsement page in PDF.

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

7.4 Each eligible institution[13] **must rank the applicants in decreasing order of preference** for strong considerations. Applicants will be reviewed accordingly across all AUs submission ranking **based on merits** of the applicant.

7.5 Each eligible institution must follow the submission quota (August 2025 intake call) below:

i. no more than ten (10) applications each from NUS and NTU;
ii. no more than five (5) applications each from SMU and SUTD

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

8. Terms and Conditions of the Award

8.1 The funding of AMP Year 2 is conditional upon the host institution in providing the Masters (Research) admission offer and acceptance of the AMP awardee at least three (3) months[14] before the AMP Year 1 end date of undergraduate degree.

8.2 AISG awarded Accelerated Masters Research awardees will have to sign in the Statement of Acceptance (SOA) along with the Host Institution's appointed signatory if s/he decide to take the award. Additionally, the awardee is required to sign a letter of undertaking with the

[13] Applicable to Autonomous Universities (AUs) offering PhD programme: National University of Singapore (NUS), Nanyang Technological University (NTU), Singapore Management University (SMU), Singapore University of Technology and Design (SUTD).
[14] If the institution/awardee foresees that they are unable to provide the necessary documents by the stated deadline, a formal request for an extension must be submitted to AISG for approval. AISG reserves the right to reject such requests.

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Host Institution.

8.3 AI Singapore will disburse funds on a reimbursement basis. Host institutions shall submit requisitions for claimable expenses permitted and granted under the AI Singapore AI Accelerated Masters **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 the chief financial officer or an authorised nominee.

8.4 Supervisor(s) of the approved awardee is/are obligated to provide written description of the awardee's progress along with each half yearly expense claim.

8.5 No funds shall be disbursed for awarded awardees and his/her relevant expenses unless:

i. The respective research compliance approvals (where applicable) have been obtained from the appropriate board/office for its research directions.
ii. Submission of supervisors/co-supervisors[15] names are provided prior to the second claim or first six-months of the awarded date of award, whichever is earliest.
iii. Satisfactory performance of the awarded Accelerated Masters Research awardees by maintaining a GPA of 4.0 out of 5.0 system or 3.2 out of 4.0 system.

8.6 Awarded Accelerated Masters Research awardees are not allowed to engage in any other remunerated employment[16] during AISG's supported period. For pro-bono consulting and other exceptional cases, s/he is required to notify and obtain AI Singapore's approval.

8.7 Awarded Accelerated Masters Research awardees who wish to pursue research exchange with prestigious universities (i.e. visiting scholars) or embark on an industry research internship attachment are required to notify and obtain i) supervisor, ii) faculty and iii) AI Singapore's approval before accepting the offer by the institution or company. The proposed research exchange and internship should contribute towards the Undergraduate Final Year Project (Thesis equivalent) and/or Master' thesis direction and the stated focus research theme.

8.8 Graduated AISG Accelerated Masters Research awardees are required to report their employment status every 6 months of the post-one year for tracking purposes. Graduated AISG Accelerated Masters Research awardees are required to submit a letter of employment (full-time) from his/her employer after commencement of employment to his/her AU institution and AI Singapore along with a copy of his/her employment pass for Singapore.

8.9 Any false reporting will constitute reason to terminate the award and the awardee will be

[15] The supervisor/co-supervisors' name(s) are to be from the following Institution of Higher Learning (IHLs): Agency for Science, Technology and Research (A*STAR), Singapore Management University (SMU), Singapore University of Technology and Design (SUTD), National University of Singapore (NUS) and Nanyang Technological University (NTU).

[16] Remunerated employment encompasses any form of compensation beyond the AISG payment.

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liable for liquidated damages as stated in the AISG award's terms and conditions.

8.10 AI Singapore will review those who are unable to complete deliverables due to unforeseen circumstances on a case-by-case basis.

8.11 AISG Accelerated Masters Research awardees who wish to terminate their award prior to the completion of his/her Masters (Research) degree are required to pay liquidated damages (LD) to AISG. More information on the LD will be provided at a later date together with the Statement of Acceptance (SOA).

8.12 AI Singapore will consider appeals due to extraordinary circumstances for partial LD waivers on a case-by-case basis.

8.13 **Force Majeure**: If for any reason beyond the university's and/or the AISG Accelerated Masters Research awardee's reasonable control, including but not limited to strikes; labour dispute; statutes, regulations, acts, orders or directions of government authorities; government requisition; civil disorder; disasters; acts of war; acts of God; fires; flood, health, safety, epidemic, disease or any other emergency condition that leaves the university or the fellow unable to perform his/her obligations as per the terms and conditions, AISG may consider a full LD waiver after assessment. Force majeure will exclude any foreseeable or known events. In no event shall AISG be liable for consequential damages of any nature for any reason whatsoever.

8.14 The terms and conditions of the AISG Accelerated Masters Research award may be amended from time to time based on AISG's grantor guidelines.

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