





FCCS AI LAB programme

Al Singapore (AISG)



Launched in May 2017

National R&D programme in Al

- first of its kind national level setup
- build deep national capabilities in Al
- create social and economic impacts
- grow **local talent**
- accelerate Al ecosystem
- put Singapore on the world map



AISG Pillars

Support Singapore's vision to be a leader in developing scalable, impactful Al solutions strategic to the nation









Sustain investments in fundamental AI research to ensure SG's relevance in the global AI race

Support applied Al research projects which are aligned to the NAIS

Catalyse and support more widespread industry adoption of Al

Build catalytic Al products/solutions to enrich Singapore Al Ecosystem

Research in
governance, ethics
and accountability of
Al systems at the
national level

- ✓ Build Strategic Capabilities
- ✓ Retain and Nurture Local Talent
- Preposition SG for Future Applications

- Al Solutions with High Social and Economic Impacts
- Sector-wide or National Scale Challenges

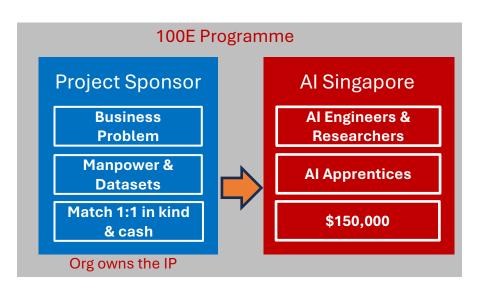
- Al Adoption in Industry through Talent and Projects
- ✓ AI Standards
- Industry Consortia

- Project SEA-LION
- ✓ Large Language Models
- ✓ Multilingual Capabilities
- Multimodality
- Data and Evaluation Benchmarks

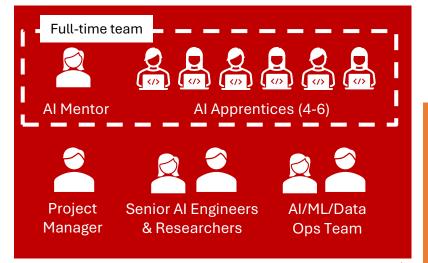
- ✓ Fairness,
 Accountability and
 Transparency of AI
 Systems
- Privacy and Ethics
- ✓ Risk and Mitigations



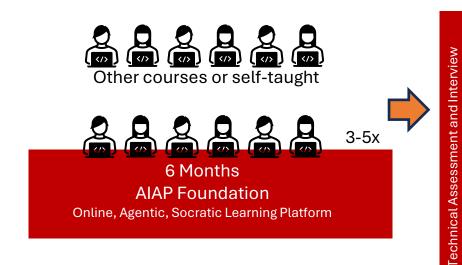
AIAP® Programme with Real-World Industry Projects

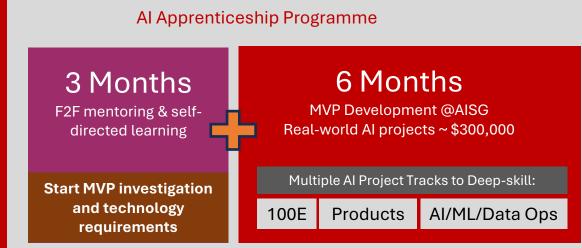






Real-world
AI MVP
+
3-6 trained
AI
Engineers

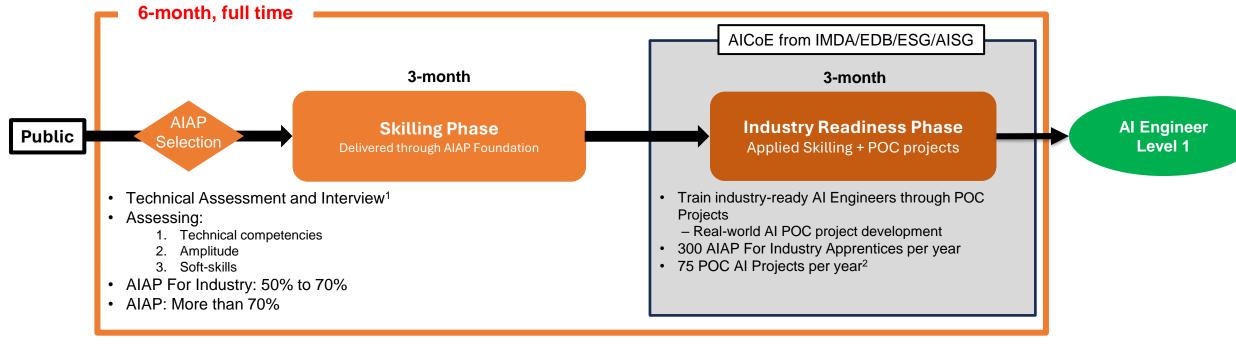




~ 100 projects ~ 400 AI Engineers



AIAP For Industry



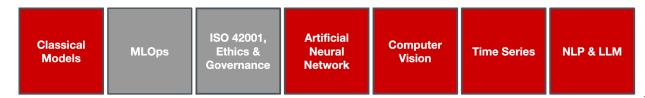
- Administrated identical to AIAP recruitment
- Successful POC will be translated into 100E projects for AIAP

Training Outcomes

- Industry-Ready Al Engineers: Graduates possess a strong, practical technical proficiencies in Al, MLOps and Software Engineering, enabling them to fill Al Engineering roles and contribute effectively to the tech industry
- Al-Enhanced Professionals: Graduates gain the ability to integrate Al knowledge into their existing roles upon returning, enhancing operational efficiency, managing Al projects, and fostering innovation across various sectors.

AIAP4I: Skilling Phase

3-months AI-powered, Online Learning Based on AISG Teaching Methodology



Project-based Learning to acquire practical AI knowledge & industry-relevant software engineering proficiency, facilitated by AISG in-house AI-powered learning platform. Includes weekly mentor-facilited discussion by AISG Mentors

Master **End-to-end** Machine Learning Pipeline for each topic:

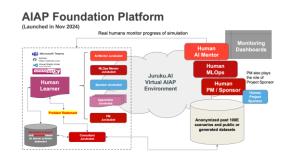
- Exploratory Data Analysis (EDA)
- Data Cleaning & Preprocessing
- Model Development and Hyperparameter Tuning
- End-to-End Machine Learning Pipelines

Hone technical skills by working on a personalised **Capstone Project**

Simulated project sprints:

- Sprint 1 Literature Review
- Sprint 2 EDA
- Sprint 3 Data Preprocessing and Feature Engineering
- Sprint 4 Baseline Model Building
- Sprint 5 Hyperparameter Tuning and Evaluation
- Sprint 6 Documentation

Facilitated by AIAP Foundation Agentic Learning Platform:



Al Engineer Agent

Review Open-ended questions, Mini-projects and Capstone Project, and provide personalized technical feedback in a socratic-manner.

Consultant Agent

Scope personalised project and dataset based on learner's inputs: domain, problem-statement

Project Manager Agent

Ensure learner's project success by crafting personalised project AI SINGAPC

Types of project by Al Singapore

	100E programme	Short Industry Programme SIP	3-months POC AIAIP4I
Duration	6 months	3 or 4 months	3 months
Al Singapore's team	1 PM + 1 mentor + 5-6 apprentices + plaform	1 PM + 2-3 AI engineers + plaform	1 PM + 1 mentor + 2-3 Apprentices AIAP4I + plaform
Time constraint	Upon AIAP batch (next August 25 then Jan 26)	Anytime	Upon AIAP4I batch (next Jan 26)
Cost supported by the sponsor/company	150k\$ in kind and cash (63k\$)	16-22k\$ + in-kind	Special access for FCCS member now 40k\$ in-kind ONLY
Deliverables	MVP (end-to-end pipeline)	MVP (end-to-end pipeline)	POC





Requirements

COMPANY PROFILE ELIGIBILITY

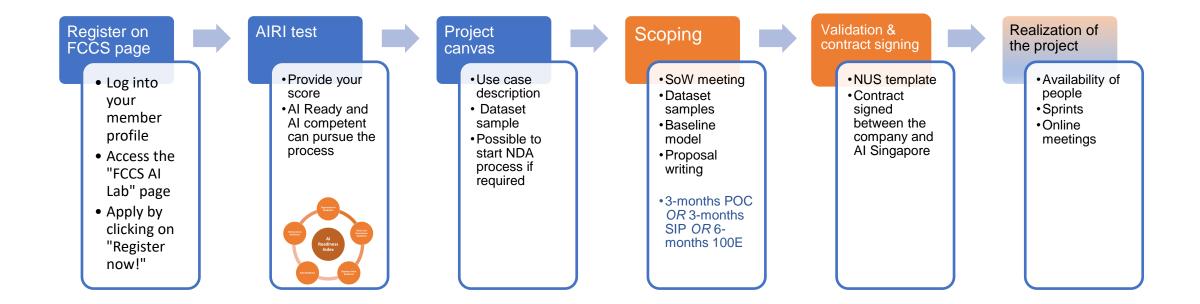
- Incorporated in Singapore
- All types of industrial sectors
- Minimum of tech support in Singapore (project lead)
- Willingness to develop AI capacities in Singapore on the long run (headcount growth)
- Available for startups, SMEs, corporates

PROJECT-WISE

- Good Al use case
- Substantial business value / impact
- Technical feasibility
- Published papers and algorithms are available for the project
- Scope defined for 3-months project or 6-months project
- Data readiness BEFORE project commencement
- COTS solution is not available or does not meet organisation's requirements
- Computing



I think I am eligible and I have a use case, what are the steps to benefit from this programme?



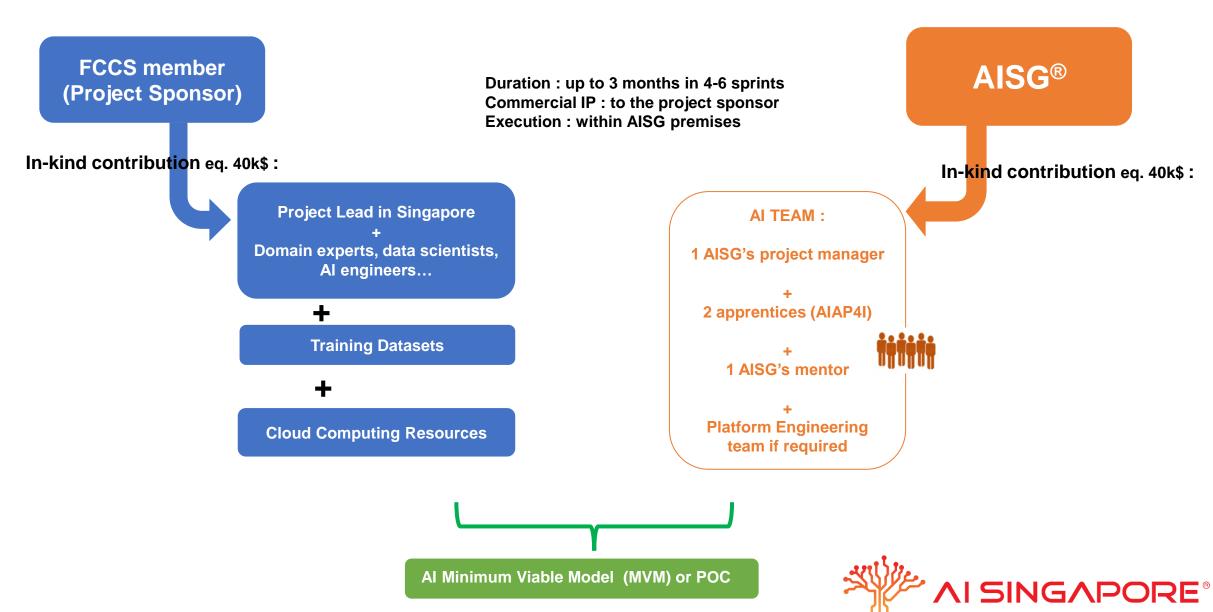


Register on FCCS page: Step-by-Step Application Process

- 1. Log in to your member profile on the FCCS website.
- 2. Go to the **FCCS Al Lab Programme page**: https://www.fccsingapore.com/events/upcoming-events/e/event/fccs-ai-lab-programme.html
- **3. Review** the selection criteria and terms & conditions carefully.
- 4. If you meet the eligibility criteria, **click "Register Now!"** to apply.
- 5. After registering, you'll receive a link from FCCS to access the AIRI (AI Readiness Index tool) hosted by AI Singapore.
- 6. Complete the Al Readiness Index, and once you receive your score via email, forward it to the FCCS team (Contact : Alice Boulard aboulard@fccsingapore.com)
- 7. If confirmed eligible, FCCS will send you the **Project Canvas** to assess your project.
- 8. FCCS will then submit your completed Project Canvas to Al Singapore for final assessment.
- 9. If your project is approved, **Al Singapore will contact you directly** to proceed with the implementation process in your company.

Any question? Please contact the FCCS Alice Boulard: aboulard@fccsingapore.com

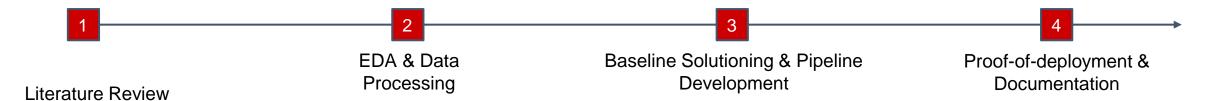
3-months POC (AIAP for Industry)



Deliverables



Four (4) development stages:



Primary Goal	To verify core technical feasibility of the AI approach within an idealized, simplified, and isolated context.			
Deliverables				
EDA	Preliminary investigation on a limited data subset to confirm basic signal presence, data quality and initial technical feasibility.			
End-to-end ML Training Pipeline (in Python Scripts)	Core algorithm steps, sufficient to demonstrate technical feasibility in a simplified, isolated scenario.			
Deployable ML Inference Pipeline (in Python Scripts)	Rudimentary proof-of-deployment without environment-specific adaptation.			
Documentation	Setup, operational usage, technical feasibility findings, and next steps.			



Additional information



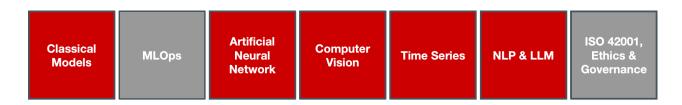
Al Apprenticeship Programme4l





AIAP4I: Skilling Phase based on AIAP®

3-months, Online Learning Based on AISG Teaching Methodology before starting 3 months Company project



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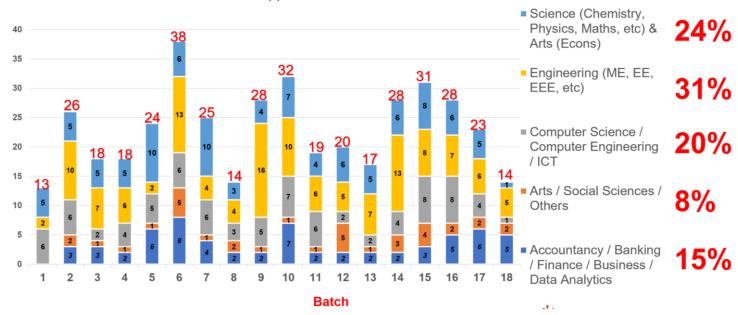
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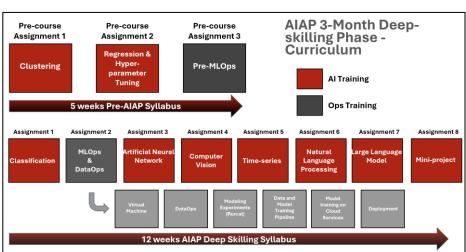
Secret Sauce of AIAP

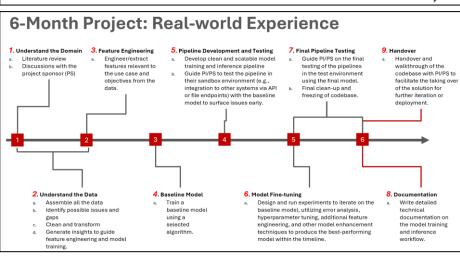
Total number of Apprentices = 416











AIAP For Industry (AIAP4I)





In-house training at Al Singapore conducted by AISG Team

Al Readiness Index (AIRI)



Al Readiness Index (AIRI)

- Holistic end-to-end view and programmatic approach for Digital Transformation with Al for organisations.
- 15-minute self assessment on the 5 pillars of readiness. Organisations / business units are classified into:
 - Al Unaware
 - Al Aware
 - Al Ready
 - Al Competent
- To identify organisations who are Al Ready to participate in AISG 100 Experiments (100E) programme.
- Visit: https://www.aisingapore.org/airi

5-Pillars And 12-Dimensions





	Al Unaware	Al Aware	Al Ready	Al Competent		
Average Score	Less than 2.5	2.5 to 3.4	3.5 to 4.5	Greater than 4.5		
Interpretation	Organisation might hear about AI, but is unaware of AI applications.	Organisation is aware of AI applications and could identify potential use cases.	Organisation has the capabilities to integrate pre-trained AI models into products or business processes.	Organisation has the capabilities to develop customised AI models and solutions for specific business needs.		
Characteristics	Wait for vendors to convince with use cases and business value of AI Consume ready-made AI solutions	Actively seek AI solutions to address business needs. Able to identified potential use cases for AI applications, and consume ready-made AI solutions.	Evaluate and seek AI APIs, SDKs and pre- trained AI models for use within business.	Have strategy and roadmap of AI deployment for organization.		
Recommendation	Increase AI literacy of organisation.	Consume ready-made, end-to-end, COTS AI solutions.	Prepare organisation to adopt and integrate AI solution. Broaden understanding of AI to whole of organization.	Deepen organisational AI capabilities. Broaden understanding of AI to whole of organization.		
		Al Singapore				
Advisory and Roadmaps			Al Advisory Programmes: Discovery/Ideation Workshops, Al Ready Clinics for Leaders			
	Al For Everyone (Al4E), Data Analytics For Everyone					
Skills and Training	LearnAl: Al For Industry (Al4I), AIAP Field Guide					
				Al Certification		
Capabilities	Al Apprenticeship Programme (AIAP)					
Innovation	100Experiments (100E)			eriments (100E)		

Point of contact Al Singapore : elina@aisingapore.org
Point of contact FCCS : aboulard@fccsingapore.com

THANK YOU!

www.aisingapore.org









