



AUTO DIGITID AFRICA

ACADEMIC PATHWAYS · 2026 EDITION

University and TVET pathways in AIDC

Where AIDC belongs in higher and technical education - and how academic study and professional certification fit together without replacing one another.

FOR STUDENTS · PARENTS · FACULTY · INSTITUTIONS

Somebody has to design the systems

Deploying an AIDC system is a skill. Deciding what should be built, why, at what cost and under what governance is a discipline - and it takes a degree to develop it properly.



Architecture

Designing the full identification and automation stack, not configuring one part of it



Standards literacy

GS1, EPC, ISO, digital product passports and digital identity as design constraints



Economic reasoning

Building and defending ROI and business cases to executive audiences



Governance and ethics

Privacy, accountability and AI oversight designed in, not bolted on

This curriculum produces architects, systems thinkers and intelligent-automation strategists. It is intentionally separated from the certification programmes, which own deployment, configuration and tooling.

The university teaches design, architecture and decision-making. The certifications teach deployment, configuration and execution.

University and TVET at a glance

	UNIVERSITY BTech · architecture-first	TVET Technical and vocational
ORIENTATION	Design, architecture, research and strategic decision-making	Equipment-rich workshop practice, maintenance and workplace competence
THE LEARNER	School leavers and professionals building toward architect, consultant and strategy roles	Learners building hands-on trade and technical capability, often alongside employment
HOW IT IS ASSESSED	Coursework, architecture labs, ROI models and a defended capstone	Workshop hours, equipment practice, safety and employer assessment
WHAT IT PROTECTS	Mathematics, programming, research methods, architecture and the original capstone	Practical hours on real equipment and assessment in the workplace
RELATIONSHIP TO CERTIFICATION	Certification may be taken in parallel. It is never part of academic credit	Professional and Specialist may complement trade pathways and workplace evidence

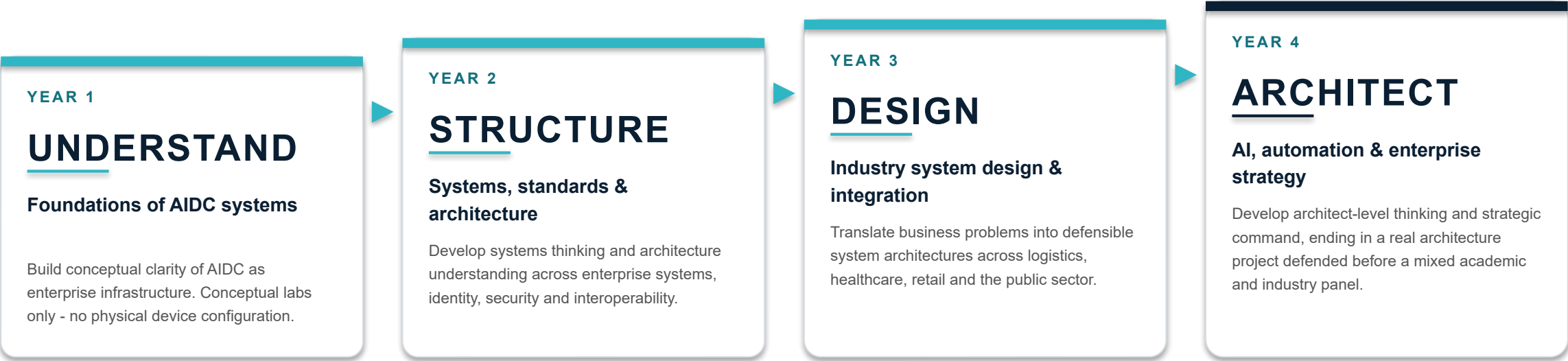
Detailed TVET curriculum, unit and qualification information is issued by Auto DigitID Africa directly to adopting institutions.

Four years, four ways of thinking

BTech in AIDC & Intelligent Automation · Architecture, Systems & Strategy track

DURATION	CREDIT LOAD	ALIGNMENT	MODE
4 years / 8 semesters	128 credits	NQF Level 7 (adaptable by country)	Full-time / modular / hybrid

EACH YEAR IS ANCHORED TO A DOMINANT COGNITIVE VERB



Exit awards: Diploma exit after Year 2; optional Higher Diploma exit after Year 3. · Industrial attachment of 8-12 weeks in Year 3, Semester 2. · A mandatory industry-defended architecture project in Year 4.

What a graduate can do

ON COMPLETION, GRADUATES CAN

- Architect enterprise-grade AIDC ecosystems
- Design AI-enabled operational workflows
- Model and defend ROI-driven automation programmes
- Design traceability, identity and digital product passport systems
- Evaluate integration architectures across ERP, WMS, MES, TMS and EHR
- Apply governance, ethics and compliance frameworks
- Defend architecture decisions before academic and industry panels

HOW IT IS ASSESSED

Coursework (continuous assessment)	40%
Practical simulations & architecture labs	20%
Projects, case studies & ROI models	20%
Final examination	20%

The Year 4 capstone is an architectural defence, not a build project. A pass requires demonstrated reasoning under questioning by senior industry assessors.

Laboratories focus on systems design, data-flow modelling and architectural reasoning - not vendor tooling. Scanner configuration, RFID tuning, printer setup and device management are deliberately excluded and remain part of the certification pathway.

Every credit is assessed

HOW THE 128 CREDITS DIVIDE

University common units	18 credits
Core AIDC and systems units	74 credits
Integration, AI and automation units	18 credits
Research and capstone	12 credits
Industrial attachment	6 credits
Total	128 credits

One credit is about ten notional learning hours per semester week. Institutions may map this to ECTS, SAQA or a local framework during adoption.

There are no electives and no optional units. Every one of the 128 credits is credit-bearing and assessed.

WHERE AI SITS, AND HOW THAT DIFFERS

- Year 3 AI foundations for operations
- Year 4 AI in AIDC systems
- Year 4 Machine vision and intelligent inspection
- Year 4 Enterprise automation and orchestration
- Year 4 Governance, ethics and compliance

AI is not enrichment here. It is 18 assessed credits across Years 3 and 4, and the Year 4 capstone devotes 15% of its mark to an AI and automation integration strategy with human-in-the-loop design.

Technical and vocational routes into AIDC

TVET institutions bring something university programmes deliberately do not: sustained, equipment-rich, workplace-assessed practice.



Equipment-rich practice

Sustained workshop hours on real scanners, printers, readers and mobile devices



Maintenance and safety

Servicing, fault-finding, safe working practice and preventive maintenance



Workplace assessment

Competence evidenced by employers in a real operating environment



Employment-linked

Designed around learners who are working, or moving quickly into work

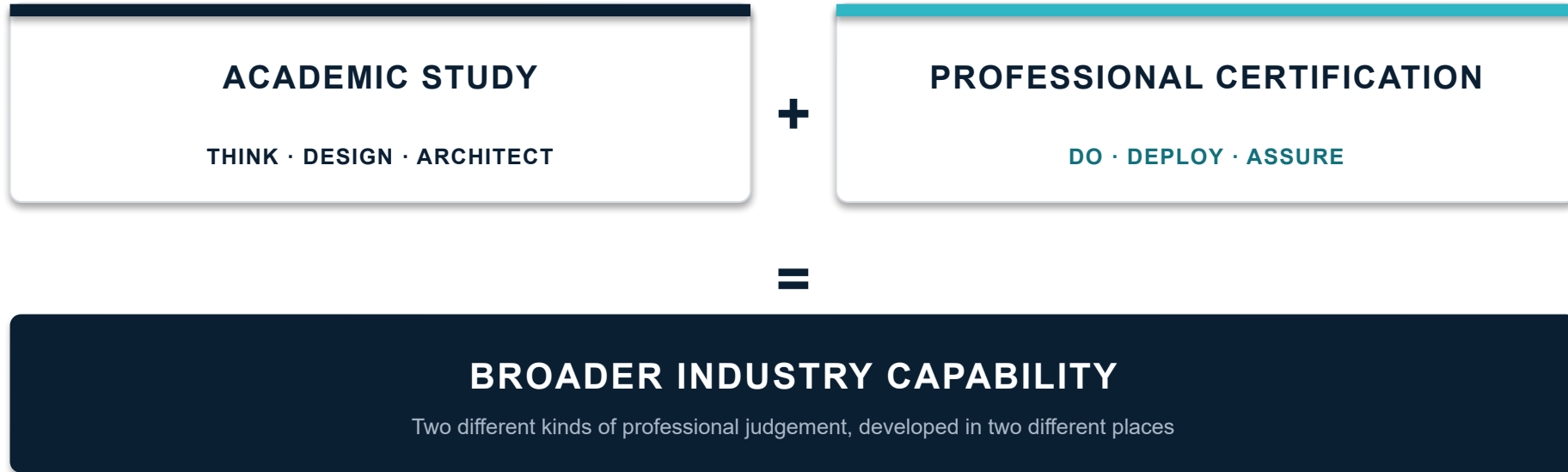
HOW TVET CONNECTS TO THE REST

- Certified AIDC Professional and Specialist may complement trade pathways and workplace evidence
- Certified AIDC Professional is offered as a TVET- or university-bundled practical credential
- The BTech curriculum is structured for adoption by universities and TVETs, with articulation for diploma and higher-diploma exits

What we are not stating here

Auto DigitID Africa has not yet published an approved detailed TVET curriculum. Unit lists, credit values, qualification levels and TVET-specific pricing are therefore not stated here. Institutions should contact Auto DigitID Africa directly to discuss adoption.

Complementary pathways, not competing ones



Academic learning and professional certification are complementary pathways. One is not a substitute for the other, and neither is a requirement of the other.

Universities do not deliver certification content as part of academic credit. Certifications are enrolled in separately, in parallel to or after the degree. No student is required to purchase both.

One ladder, four distinct professional ceilings

	PROFESSIONAL	SPECIALIST	EXPERT	UNIVERSITY / BTECH
PRIMARY VERB	DEPLOY	INTEGRATE	ASSURE	DESIGN
SCOPE	Devices and endpoints	Systems and workflows	Enterprise delivery	Enterprise architecture and society
OWNS	Configuration and support	A working data flow	Production readiness	Original architecture and strategy
DECISIONS	How to make it work	How to make systems talk	How to deliver it safely at scale	What should be designed, and why
CAPSTONE	Deployment	Integration	Delivery assurance	Original research and architecture
HIRING SIGNAL	Technician	Solution / integration engineer	Implementation / delivery lead	Architect / strategist / researcher

The online ladder ends at expert practitioner and delivery leadership. The degree advances the learner into accountable architecture, strategy, research and innovation.

How the two can run alongside each other

ACADEMIC STAGE	CERTIFICATION RELATIONSHIP	PROTECTED ACADEMIC VALUE
BTech Years 1-2	Professional may be taken in parallel, or recognised as practical evidence	Mathematics, programming, systems foundations, technical writing
BTech Year 3	Specialist may be taken in parallel or after verified integration work	Integration architecture, modelling, sector design and research methods
BTech Year 4	Expert is separate and may require additional field evidence. There is no automatic dual award	AI and model design, governance and policy, strategy, original research and the defended capstone
TVET	Professional and Specialist may complement trade pathways and workplace evidence	Workshop hours, equipment practice, maintenance, safety and employer assessment

Recognition-of-prior-learning decisions belong to the accredited institution. Certification may support exemption from selected practical laboratories or electives - never from research, architecture, mathematics, programming or the degree capstone.

Academic study opens a different ceiling

ROLES A BTECH GRADUATE MOVES TOWARD

- AIDC Solutions Architect
- Enterprise Systems Architect
- AI & Automation Consultant
- Digital Transformation Lead
- Operations Strategy Manager
- Healthcare Traceability Architect
- Public Sector Identity Systems Architect
- Industry Innovation Lead

SECTORS THAT HIRE THEM



Logistics & 3PL

Warehousing, transport, EPCIS events, cold chain and RTLS



Healthcare

Patient and product identity, DataMatrix, UDI, privacy and safety



Manufacturing

MES, work in progress, RFID, vision and industrial connectivity



Retail & Omnichannel

2D at point of sale, Digital Link, inventory and consumer information

These are the directions the qualification opens. Auto DigitID Africa publishes no employment guarantee, placement rate or salary expectation, because no verified evidence supports one.

Choosing between them, or combining them

Neither pathway is a lesser version of the other, and neither requires the other. Choose the one that matches the work you want to be accountable for.

01

Students and parents

Choose academic study to design and justify systems; choose certification to deploy, integrate and assure them.

02

Faculty and advisers

Use the articulation table to plan parallel study without duplicating academic content.

03

Institutions

Talk to Auto DigitID Africa about curriculum adoption, faculty enablement and Academic Partner status.

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