- In a causal graph, cause-effect relations are determined.
- A node is an important (contextual) variable.
- An edge indicates the direction of causality.

Independence Criteria

1. Winter is coming ⊥ Neighbour
2. Temperature ⊥ Neighbour
3. Winter is coming ⊥ Leaves | Temperature

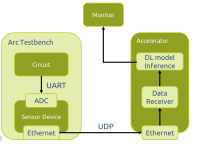


Figure 1 Demonstrator with accelerator integrated

- Arc Detection

Acronym	Meaning
I_sens	Sensed current
Load	Load Profile (incl. fixed or flexible connect, loads)
Post	Classification (Result)
Arc	Arc Occurance
U1	Sensor Noise
Pro	Property of fault (Serial or Parallel arc)
Typ	Typ of installation (material, classification fix or flexible)

Minimal sufficient adjustment sets for estimating the total effect of Arc on Post:

1. Load

Independence Criteria

1. Load ⊥ Post | I_s
2. Arc ⊥ Post | I_s

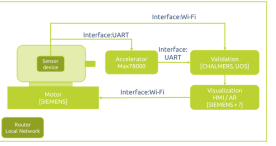
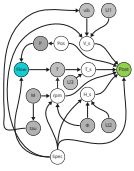


Figure 2 Evolved Architecture for Motor Condition Classification

- Motor Condition Classification



Acronym	Meaning
H_s	Magnetic Field Sensor
B	Magnetic Flux
Post	Classification (Result)
idb	Vibrations
P	Air Pressure outside
V_s	Vibrations Sensor
T_s	Temperature Sensor
rpm	Rotations per minute
Pos	Position

Independence Criteria

1. T_s ⊥ H_s | rpm
2. Post ⊥ rpm | H_s, T_s
3. Post ⊥ flow | T_s, rpm
4. Post ⊥ flow | H_s, T_s
5. rpm ⊥ flow
6. H_s ⊥ flow