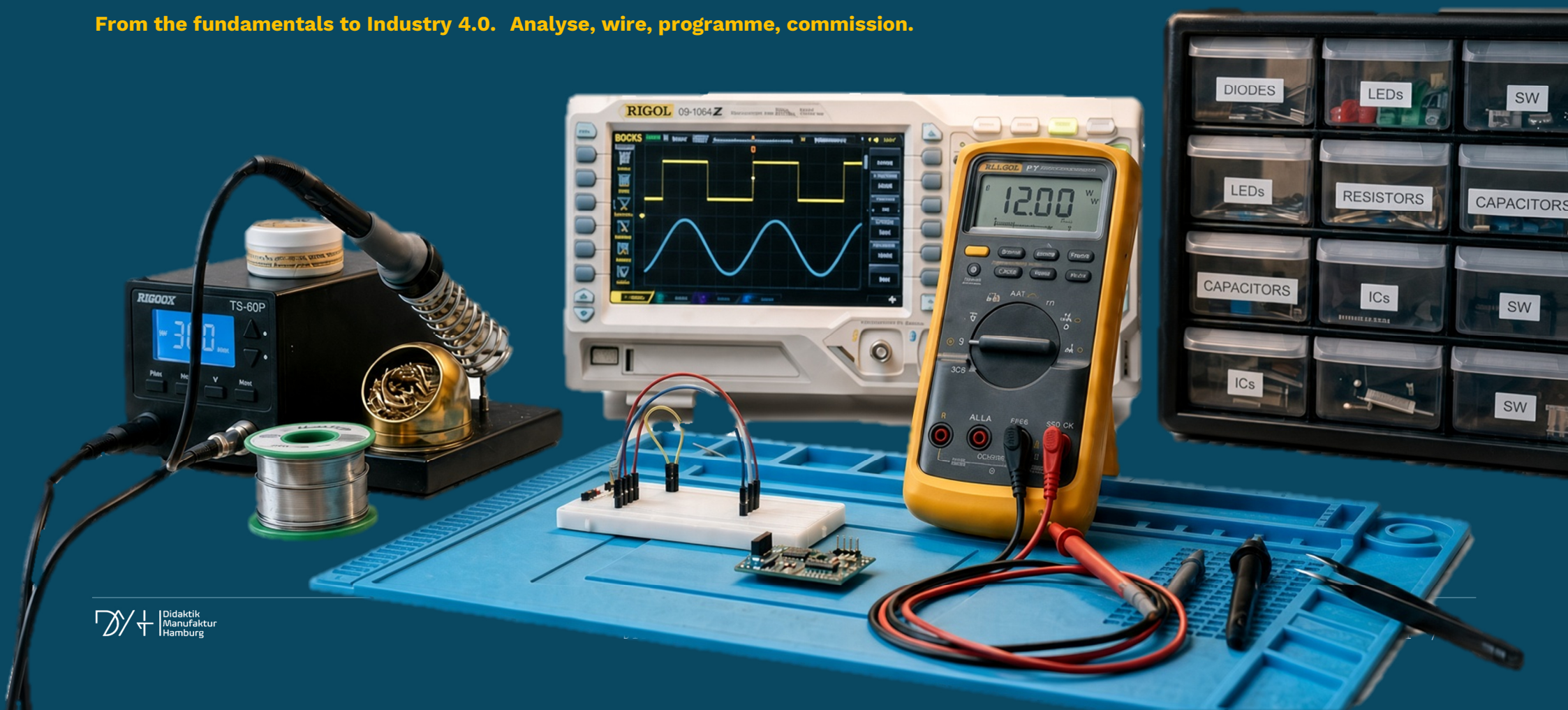


TECHNICAL CURRICULUM · AUTOMATION, PLC & INDUSTRY 4.0 · FULL-TIME

INDUSTRIAL ELECTRONICS

A practice-based full-time programme for industrial electronics and automation technology.

From the fundamentals to Industry 4.0. Analyse, wire, programme, commission.



THE PROGRAMME

Automated systems do not run on their own. This programme builds the skills for exactly that, from the measuring lead to the



Industrial Electronics is a practice-based two-year programme for industrial electronics and automation technology.

Across twelve core specialist modules and an in-company final project, trainees progress from electrical fundamentals through sensors, PLC programming and control engineering to drives, industrial networks, SCADA and robotics.

The focus is on hands-on practice throughout. Learning takes place on real controllers, sensors and drives, with over 800 hours of hands-on learning time and around 75 predefined exercises at eight workstations.

Each module concludes with an assessed examination, so that competence shows in real work and not on paper. Standards and occupational safety are built in throughout.

The programme is offered as a curriculum, as a matching equipment specification or as a turnkey package for the site.

12

CORE MODULES

800_{h+}

HANDS-ON TIME

75₊

HANDS-ON EXERCISES

8

WORKSTATIONS

2_{years}

FULL-TIME

PRACTICAL CURRICULUM

Twelve modules

From electrical fundamentals through control and regulation systems to integration,

diagnostics and future technologies, concluding with the in-company final project.



MODULE

M1 – M12 + CAPSTONE · BY PHASE

M1 Electrical fundamentals & metrology

FUNDAMENTALS

M6 PLC programming (IEC 61131-3)

CONTROL & REGULATION

M11 Commissioning, diagnostics & maintenance

INTEGRATION & FUTURE

M2 Occupational safety, VDE/DGUV & standards

FUNDAMENTALS

M7 Control & regulation technology

CONTROL & REGULATION

M12 Robotics, Industry 4.0, IIoT & OT security

INTEGRATION & FUTURE

M3 Analogue & digital components

FUNDAMENTALS

M8 Drive technology & power electronics

CONTROL & REGULATION

B13 Final project & system integration

CAPSTONE

M4 Switching, installation & contactor circuits

FUNDAMENTALS

M9 Industrial networks & communication

INTEGRATION & FUTURE

M5 Sensors & actuators (incl. IO-Link)

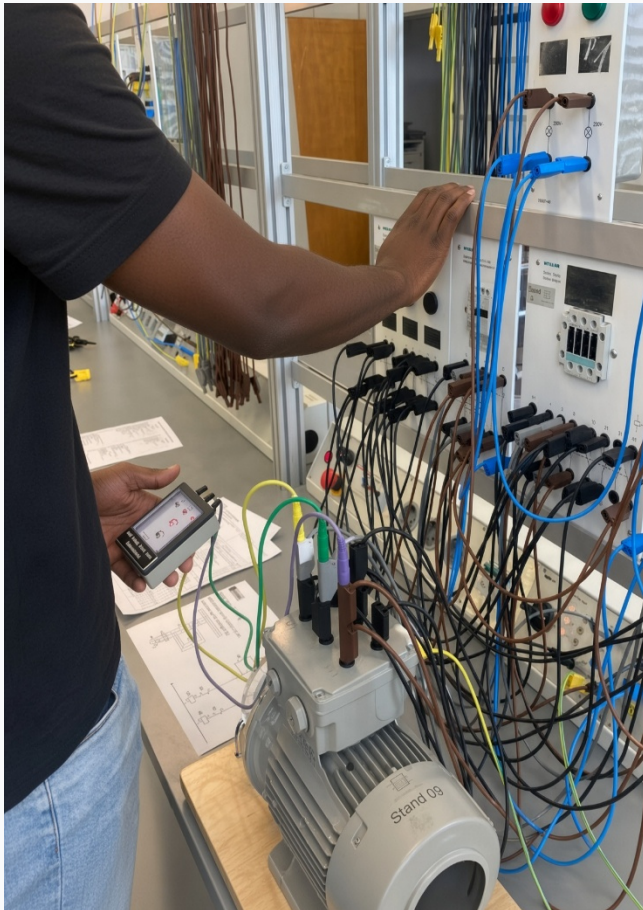
CONTROL & REGULATION

M10 SCADA, HMI & process visualisation

INTEGRATION & FUTURE

EQUIPMENT

Trained on real automation technology.



01

Measuring, testing & diagnostics

Multimeters, oscilloscopes, callipers as well as testing and diagnostic software.

02

PLC & control stations

PLC training stations (S7-compatible), control assemblies, wiring.

03

Sensors, actuators & drives

Sensor/actuator modules, IO-Link, converters as well as servo and motor technology

04

Industrial networks & visualisation

Profibus/Profinet, Ethernet, IO-Link as well as HMI and SCADA components.

05

Robotics & Industry 4.0 modules

Robotics interfaces, IIoT modules and network simulators.

06

Tools, protection & safety

Hand and power tools, stripping/crimping pliers, PPE and protective equipment.

~250 ITEMS · 6 CATEGORIES

BRING THE PROGRAMME TO YOUR SITE

LET'S GET STARTED.

AVAILABLE AS • **Turnkey** (consulting + equipment + delivery + curriculum + installation)

