

ADULT EDUCATION & PROFESSIONAL TRAINING MODEL

Integrated Online Learning, Practical Training
and Real-Environment Competency Development
for the Future of CEA and Sustainable Agriculture



ONLINE LEARNING
DAA Online Academy



PRACTICAL TRAINING
CEA Training Truck



REAL ENVIRONMENT PRACTICE
High-Tech CEA
Hydroponic Greenhouse



COMPETENCY ASSESSMENT
Practical & Applied
Competence



WORKFORCE OUTCOMES
Employment • Upskilling
Entrepreneurship • Career
Progression • Trainer
Development



SUSTAINABLE



DIGITAL



INCLUSIVE



FUTURE-READY

PROGRAMME ARCHITECTURE AT A GLANCE

15 CORE + 3 ADVANCED = 18 PROGRAMMES

15 CORE PROFESSIONAL PROGRAMMES

 PRODUCTION & MANAGEMENT 4	 TECHNICAL & ENGINEERING 3	 SMART, DIGITAL & SUSTAINABLE CEA 4	 QUALITY, BUSINESS & INSTITUTIONAL CAPACITY 4
01  CEA & Hydroponic Crop Production Operator	02  Hydroponic Systems & Fertigation Technician	06  Smart & Digital Agriculture for CEA	09  Food Safety, Hygiene & Post-Harvest Management
05  Greenhouse Production & Operations Management	03  Greenhouse Climate Control & Automation Technician	07  Climate-Smart & Resource-Efficient CEA	10  CEA Agribusiness & Farm Entrepreneurship
11  CEA Production Supervisor	04  CEA Maintenance & Technical Operations	08  Plant Health, IPM & Biosecurity in CEA	14  CEA Quality, Traceability & Compliance Management
12  CEA Greenhouse Manager		13  Water, Nutrient & Resource Management for CEA	15  Agricultural Extension & CEA Training of Trainers (ToT)



3 ADVANCED CEA TECHNOLOGY PROGRAMMES

16  Advanced Greenhouse Lighting & Crop Light Management Lighting Strategy • PPFD • DLI • Spectrum Photoperiod • LED Technology • Crop Response • Energy Optimisation	17  Autonomous Greenhouse & AI-Driven Cultivation AI & Machine Learning • Sensors & IoT • Predictive Control • Computer Vision • Decision Support • Autonomous Cultivation	18  Greenhouse Energy Management & Modelling Energy Balance • Heating & Cooling Loads • Thermal Screens • Heat Pumps • Renewables • Energy Simulation • Cost Optimisation
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18 PROGRAMMES

Complete CEA Training System



4 CORE COMPETENCY DOMAINS

Production • Technical • Smart & Sustainable Quality & Institutional Capacity



3 ADVANCED TECHNOLOGY PROGRAMMES

Innovation • AI • Energy



ONE INTEGRATED CEA TRAINING SYSTEM

Online • Practical • Real Environment Competency • Certification

01 CEA & Hydroponic Crop Production Operator



- Hydroponics & CEA Basics
- Crop Cycles & Plant Growth
- pH, EC & Water Management
- Irrigation & Climate Essentials
- Plant Nutrition & Fertigation
- Transplanting & Crop Handling
- Hygiene, Sanitation & Biosecurity
- Harvesting & Post-Harvest
- Standard Operating Procedures (SOPs)



05 Greenhouse Production & Operations Management



- Crop Planning & Rotation
- Production Scheduling
- Labour & Resource Planning
- SOP & Process Management
- Quality & Yield Management
- Resource Efficiency
- Operational KPIs & Reporting
- Continuous Improvement



11 CEA Production Supervisor



- Team Supervision & Leadership
- Production Targets & Planning
- Work Planning & Assignment
- SOP Compliance & Control
- Quality & Productivity
- Shift Planning & Coordination
- Performance Monitoring
- Problem Solving & Reporting



12 CEA Greenhouse Manager



- Crop Planning & Strategy
- Production & Operations Management
- Climate & Environmental Strategy
- Fertigation & Plant Nutrition
- Plant Health & Biosecurity
- Workforce Management & Development
- Quality, Food Safety & Compliance
- Digital Systems & Data Management
- Resource Efficiency & Sustainability
- Cost Control & Financial Performance
- Yield Optimization & Market Planning
- Risk Management & Decision Making
- Operational Leadership



CAREER GROWTH PATH



OPERATOR

Start Your Journey



OPERATIONS
MANAGEMENT

Manage Processes & Resources



PRODUCTION
SUPERVISOR

Lead Teams & Achieve Targets



GREENHOUSE
MANAGER

Lead Strategy & Driving Performance



PRACTICAL SKILLS

Hands-on learning
in real systems



INDUSTRY RELEVANT

Aligned with modern
CEA needs



SUSTAINABLE IMPACT

Building food security
& green jobs



CERTIFICATE

Recognized by leading
institutions

DAA
DIGITAL AGRICULTURE ACADEMY

KIRO BURNAZ



EGE UNIVERSITY

02 Hydroponic Systems & Fertigation Technician



- Hydroponic Systems Fundamentals
- Nutrient Solution Management
- Fertigation Systems Operation
- pH, EC & Water Quality Management
- Irrigation Systems Installation & Control
- Plant Nutrition & Recipes
- System Monitoring & Troubleshooting
- SOP Compliance & Record Keeping



ONLINE
LEARNING



TRAINING
TRUCK



GREENHOUSE
PRACTICE

03 Greenhouse Climate Control & Automation Technician



- Greenhouse Climate Fundamentals
- Heating, Cooling & Ventilation Systems
- Sensors & Data Monitoring
- Controllers & Automation Systems
- Climate Strategy & Setpoints
- CO₂ Management
- Lighting Systems Management
- Alarms, Diagnostics & Troubleshooting
- Energy Efficiency & Optimization



ONLINE
LEARNING



TRAINING
TRUCK



GREENHOUSE
PRACTICE

04 CEA Maintenance & Technical Operations



- Preventive Maintenance Principles
- Mechanical Systems Maintenance
- Electrical Systems Maintenance
- Pumps, Valves & Filtration Systems
- System Inspection & Testing
- Troubleshooting & Problem Solving
- Spare Parts Management
- Safety Procedures & Risk Awareness
- SOP Compliance



ONLINE
LEARNING



TRAINING
TRUCK



GREENHOUSE
PRACTICE

TECHNICAL CAREER PROGRESSION



FERTIGATION

Specialized skills in nutrient & water management



CLIMATE & AUTOMATION

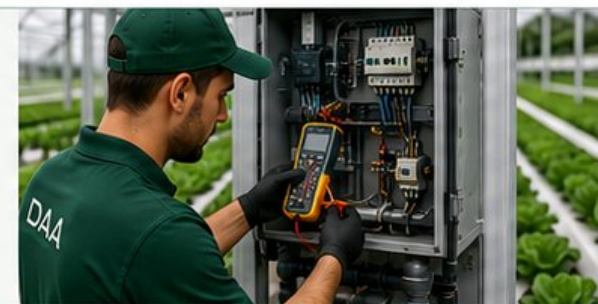
Mastery of climate control, automation & smart systems



MAINTENANCE

Ensuring reliability, performance & system continuity

From system setup to smart control and reliable maintenance — powering efficient, sustainable CEA operations.



PRACTICAL & APPLIED

Hands-on training in real systems and environments



INDUSTRY RELEVANT

Skills aligned with modern CEA industry needs



SUSTAINABLE IMPACT

Contributing to food security and green jobs



RECOGNIZED CERTIFICATE

DAA, Kiro Burnaz, Ege University co-certification



06 Smart & Digital Agriculture for CEA



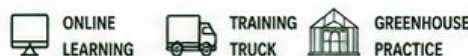
- Sensors & IoT in CEA
- Data Collection & Monitoring
- Dashboards & Visualization
- Alerts & Notifications
- Digital Records & Traceability
- Data Analytics & Insights
- Decision Support Systems



07 Climate-Smart & Resource-Efficient CEA



- Climate-Smart Greenhouse Design
- Water Efficiency & Conservation
- Energy Efficiency & Management
- Nutrient Efficiency
- Recirculation & Closed-Loop Systems
- Climate Resilience & Adaptation
- Resource KPIs & Optimization



13 Water, Nutrient & Resource Management for CEA



- Water Quality & Treatment
- Water Balance & Management
- Nutrient Management & Formulation
- EC/pH Monitoring & Strategy
- Irrigation Scheduling
- Drainage & Recirculation Management
- Resource Efficiency & Cost Control



08 Plant Health, IPM & Biosecurity in CEA



- Pest & Disease Identification
- Crop Scouting & Monitoring
- Prevention Strategies
- Integrated Pest Management (IPM)
- Hygiene & Sanitation
- Biosecurity Protocols
- Healthy Crop & High Yield



SMART & DIGITAL

Use data and technology to make better decisions



CLIMATE-SMART & RESOURCE EFFICIENCY

Optimize resources and adapt to climate challenges



WATER & NUTRIENT MANAGEMENT

Manage water and nutrients for maximum efficiency



PLANT HEALTH & IPM

Protect plants, ensure biosecurity and achieve high productivity



PRACTICAL & APPLIED

Hands-on learning in real CEA environments



INDUSTRY RELEVANT

Aligned with modern CEA industry needs



SUSTAINABLE IMPACT

Building food security and a greener future



RECOGNIZED CERTIFICATE

DAA, Kiro Burnaz Regional Centre for VET, Ege University



09 Food Safety, Hygiene & Post-Harvest Management



- Food Hygiene
- Contamination Risks
- Harvesting
- Grading
- Packing
- Storage
- Post-Harvest
- Traceability



14 CEA Quality, Traceability & Compliance Management



- Quality Management
- Production Records
- Batch Identification
- Traceability
- SOP Control
- Documentation
- Compliance
- Corrective Actions



10 CEA Agribusiness & Farm Entrepreneurship



- Business Models
- CAPEX / OPEX
- Production Costing
- Pricing
- Markets
- Sales
- Cash Flow
- Business Planning



15 Agricultural Extension & CEA Training of Trainers (ToT)



- Adult Learning
- Competency-Based Training
- Training Design
- Practical Demonstration
- Assessment
- Trainer Skills
- Knowledge Transfer



FOOD SAFETY & POST-HARVEST

Ensure safe production and quality after harvest



QUALITY & TRACEABILITY

Ensure quality, traceability and compliance at every step



AGRIBUSINESS & ENTREPRENEURSHIP

Build profitable and sustainable agribusinesses



TRAINING OF TRAINERS

Build institutional capacity and empower others



PRACTICAL & APPLIED
Hands-on training for real world CEA operations



INDUSTRY RELEVANT
Skills aligned with modern CEA industry needs



ENTREPRENEURIAL FOCUS
Preparing learners to create and grow agribusinesses



QUALITY & COMPLIANCE
Build a culture of quality, traceability and compliance



SUSTAINABLE IMPACT
Stronger institutions for a sustainable food future

16 Advanced Greenhouse Lighting & Crop Light Management



- PPFD
- DLI
- Light Spectrum
- Photoperiod
- LED Systems
- Supplemental Lighting
- Crop Response
- Lighting Strategy
- Energy Optimisation

ONLINE LEARNING TRAINING TRUCK GREENHOUSE PRACTICE CERTIFICATION READY

17 Autonomous Greenhouse & AI-Driven Cultivation



- AI
- Sensor Integration
- Data Analytics
- Computer Vision
- Predictive Control
- Decision Support
- Automated Climate & Fertigation
- Crop Monitoring
- Autonomous Cultivation

ONLINE LEARNING TRAINING TRUCK GREENHOUSE PRACTICE CERTIFICATION READY

18 Greenhouse Energy Management & Modelling



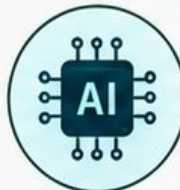
- Energy Balance
- Heating & Cooling Loads
- Thermal Screens
- Heat Pumps
- Energy Monitoring
- Renewable Energy Integration
- Energy Modelling
- Cost Optimisation
- Efficiency KPIs

ONLINE LEARNING TRAINING TRUCK GREENHOUSE PRACTICE CERTIFICATION READY



ADVANCED LIGHTING

Optimised light for higher yield and quality



AI & AUTONOMOUS CULTIVATION

Smart decisions, automation and precision control



ENERGY MANAGEMENT & MODELLING

Efficient energy use, cost optimisation and sustainability



TECHNOLOGY LEADERSHIP

Adopt cutting-edge technologies and best practices



HIGHER PRODUCTIVITY & QUALITY

Increase yield, quality and resource use efficiency



AUTOMATION & INNOVATION

Smart automation for competitive advantage



SUSTAINABLE FUTURE

Reduce environmental impact and advance circular solutions



SKILLS FOR THE FUTURE

Build advanced skills for modern CEA professions





1 — ONLINE ACADEMY

Learn the Knowledge



Multilingual
Learning



AI Tutor



Digital
Content



Online
Assessment



2 — CEA TRAINING TRUCK

Learn the Systems



Equipment



Technology



Technical
Exercises



Hands-on
Skills



3 — HIGH-TECH CEA HYDROPONIC TRAINING GREENHOUSE

Apply the Skills



Real Production
Environment



Crop
Operations



System
Operation



Practical
Training



PRACTICAL COMPETENCY ASSESSMENT

Demonstrate What You Can Do



CERTIFICATION

DAA • Kiro Burnaz • Ege University



LEARN ONLINE



PRACTICE WITH
TECHNOLOGY



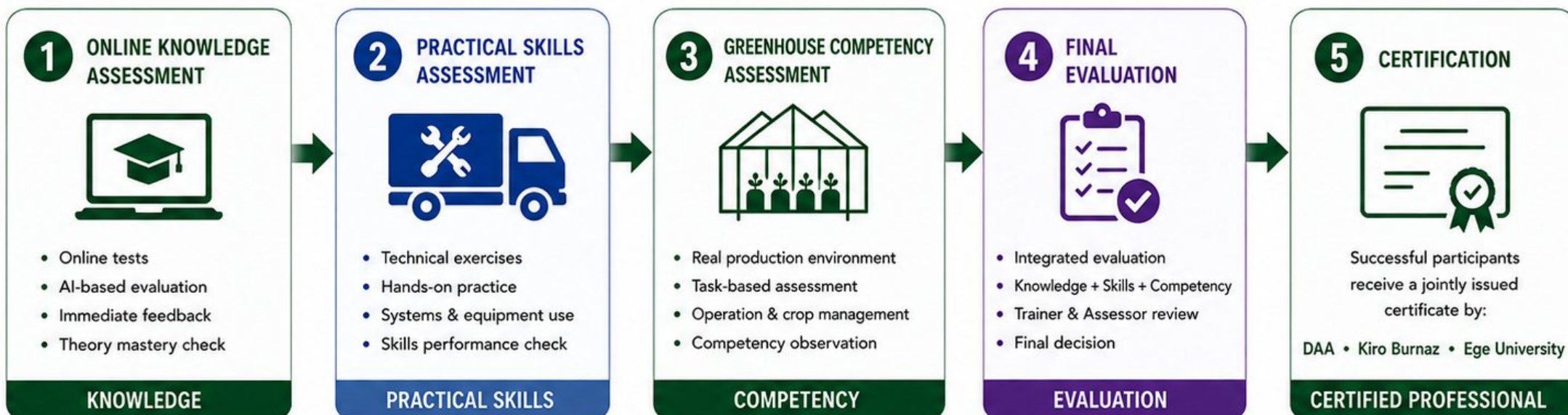
APPLY IN A REAL
GREENHOUSE



DEMONSTRATE
COMPETENCY



GET
CERTIFIED



TARGET GROUPS & EMPLOYMENT OUTCOMES

Empowering People • Creating Green Jobs • Building a Sustainable Future

TARGET GROUPS



ADULT LEARNERS

Lifelong learning
for all ages



UNEMPLOYED / RESKILLING

New skills for
new opportunities



FARMERS & PRODUCERS

Improve productivity
and sustainability



YOUNG PROFESSIONALS

Start a career in
agri-tech



TECHNICIANS & OPERATORS

Upgrade technical
competencies



GREENHOUSE EMPLOYEES

Develop operational
and management skills



ENTREPRENEURS & INVESTORS

Build and grow
agri-business



TRAINERS & EDUCATORS

Strengthen teaching
and mentoring skills



EMPLOYMENT OUTCOMES



CEA OPERATOR

Operate systems
and manage daily
production



TECHNICIAN

Maintain equipment
and ensure system
performance



PRODUCTION SUPERVISOR

Oversee teams and
optimize operations



GREENHOUSE MANAGER

Plan, manage and
deliver results



AGRIBUSINESS ENTREPRENEUR

Start and grow
sustainable
agri-businesses



CEA TRAINER

Train others and
build capacity in the
CEA sector



GREEN JOBS
for a sustainable future



SKILLS FOR LIFE
and career growth



STRONGER COMMUNITIES
and local economies



INNOVATION & TECHNOLOGY
driving modern agriculture



INCLUSIVE & EQUAL
opportunities for all