Liceul Teoretic de Informatica "Grigore Moisil"

VET Project Presentation

Integration and Digital Strategy

06 November 2025

Digital Education Initiative

School Overview

Liceul Teoretic de Informatica "Grigore Moisil"

A vocational IT high school in Northeast Romania, focusing on computer science education.

Location

Located in Iasi County, Northeast Romania

Specialization

Computer science and IT vocational education

Mission

Provide equal educational opportunities for students from rural areas

Student Focus

Students from surrounding villages with limited educational opportunities

Educational Approach

Theory and practical skills in programming, computer architecture, and more

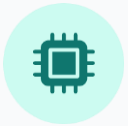
Educational Features

Specialized IT curriculum with focus on practical skills and STEM education



C++ Programming

Standardized training approved by the Ministry of Education



Computer Architecture

In-depth understanding of system design and operation



Web Design

Comprehensive training in web development technologies



Cybersecurity

Essential skills for protecting digital information and systems



Data Analysis

Skills in collecting, processing, and analyzing complex data



STEM Focus

Encouraging female participation in science, technology, engineering and mathematics

Student Demographics and Potential

Student Profile

- Ages 11-19 with strong English skills
- Highly motivated with career focus
- From rural areas with limited opportunities

Development Stages

1. Middle School (11-15 years)
   Introduction to programming
2. High School (15-19 years)
   Deepening knowledge and skills

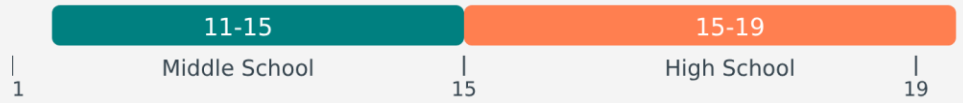
Challenges

- Economic difficulties in underdeveloped region
- Some students lack resources

Potential

- Compensate with diligence and dedication
- Strong English skills for international opportunities

Age Distribution



Current Challenges

Key challenges facing LIIS in preparing students for the workforce:

Theoretical vs. Practical Gap

Students lack practical skills despite theoretical preparation. Traditional classroom teaching struggles to provide real-world experience.

Workforce Transition

Lacking comprehensive workforce transition programs. Need better promotion of graduate employment in the business environment.

21st-Century Skills

Students need training in communication, creativity, problem-solving, negotiation, and organizational management skills.

International Experience

Students crave international exchange programs to experience different thinking modes and cultural diversity.

Addressing critical challenges for student success

Emerging Technology Needs

AI Market Growth

AI market expected to grow rapidly in the coming years, creating high demand for skilled professionals.

"AI market expected to grow, creating demand for AI engineers across various industries."

Educational Adaptation

Curriculum must adapt to technological developments to prepare students for future workforce demands.

Following EU AI strategy and national initiatives for technology integration in education.

In-Demand Skills

Students need computational skills to adapt to rapidly changing market trends, particularly in AI and machine learning.

- Healthcare
- Education
- Robotics
- Banking
- E-commerce

Strategic Response

Develop computational skills to adapt to new market trends and prepare students for careers in emerging tech fields.

School Priorities and Development Goals

LIIS is committed to excellence in education through four key priorities:



Teacher Development

Cultivating high-quality teacher teams to promote student development and enhance educational quality.



Technology Innovation

Continuously introducing new technologies to improve education quality and prepare students for the digital workforce.



Entrepreneurship

Fostering students' entrepreneurial spirit and innovation to create future business leaders and problem solvers.



Personalized Education

Encouraging students to develop unique personalities and individual strengths through tailored learning approaches.



Development Goals

These priorities align with our goal to provide quality IT education, enhance student potential, and prepare graduates for successful careers in the digital economy.

VET Project Phase 1 Objectives

Develop machine learning skills for 3 IT teachers through job shadowing at IT companies

Year 1 | Year 2 | Year 3

Target Participants

3 IT teachers from Grigore Moisil Computer Science High School

Training Method

Two-week **job shadowing** at IT companies

Skill Focus

Machine learning skills and practical applications

Expected Outcome: Bridge the gap between theoretical knowledge and practical application of machine learning in teaching

Implementation Strategy

Teachers will participate in a two-week job shadowing program, gaining practical experience with machine learning professionals.



Industry Professionals

- Machine Learning Engineers
- Data Scientists
- Project Managers

Technologies

- Python
- TensorFlow
- Cloud-based ML Solutions

Learning Approach

- Hands-on Experience
- Real-world Projects
- Industry Best Practices

Expected Outcomes

- Bridging Theory & Practice
- Updated Teaching Materials
- Enhanced Student Learning

Timeline and Activities



Job Shadowing

Spring/Summer 2026

3 IT Teachers

Two-week job shadowing program in a Spanish IT company to gain practical experience in machine learning.

Curriculum Integration

2026-2027 Academic Year

Student Mobility

Integration of machine learning concepts into the curriculum and preparation for student mobility.

AI Elective Course

2026-2027 Academic Year

AI Applications

Development of an elective course on AI and its applications in education.

Expected Outcomes and Assessment

Expected Outcomes

Practical ML Assignments

Integration of hands-on machine learning projects into the curriculum

Industry Case Studies

Real-world examples from various industries (medical, education, robotics, banking, e-commerce)

Modern Tools Integration

Incorporation of Python, TensorFlow, and cloud-based ML solutions

Assessment Methods

Student Feedback

Collecting student responses to evaluate the effectiveness of ML education

Classroom Observation

Monitoring teaching activities to assess implementation quality

Peer Review System

Teachers evaluating each other's integration of ML concepts into curriculum

Measuring successful integration of ML education

Digital Strategy and Future Vision

Digital Strategy Core

Adapting to Technology

Continuously updating curriculum to adapt to rapidly evolving technology, especially in AI

Practice-Oriented

Emphasizing workplace training to bridge the gap between theory and practice

International Vision

Broadening students' horizons through international exchanges and collaborations

Entrepreneurship

Encouraging innovation and entrepreneurship for future career readiness

Future Vision

Through the VET project, LIIS aims to:

Enhance Teacher Capability

Ensure teachers master the latest machine learning knowledge and industry practices

Optimize Curriculum

Integrate cutting-edge AI and machine learning content into the curriculum

Strengthen Employability

Improve graduate employment rates through practical training and international experience

Support Regional Development

Cultivate high-quality IT talent for Northeast Romania's digital economy growth

> *LIIS will continue to be a leader in educational innovation, providing quality IT education*