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# Project “E-Classes”

MULTIPLIER EVENT (E8)

Organizer: Association “IT World BG”

10 September 2019, Sofia, Bulgaria



LICEUL TEHNOLOGIC DE  
MECATRONICA SI AUTOMATIZARI



CONFEDERACIÓN ESPAÑOLA  
DE CENTROS DE ENSEÑANZA



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Association  
**IT WORLD.BG**  
www.it-world.bg

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# E-Classes



# About Association “IT World BG”

- ▶ Association “IT World BG” is a public non-profit NGO established in 2009
- ▶ Main purpose is development of e-society in Bulgaria and Europe
- ▶ The team consists of IT professionals and consultants
- ▶ Successful background in deployment of e-Learning solutions
- ▶ Development of digital literacy courses and web applications
- ▶ Registered Cisco Networking Academy since 2010



# “IT World BG” Projects portfolio

- ▶ 2017-2019, “Flip your classes through multimedia enriched apprenticeship simulations and develop e-skills for VET teachers and students to enhance youth employability” (E-Classes), 2017-1-RO01-KA202-037344, Erasmus+
- ▶ 2014-2016, “Master model to gain time in your classroom” (GainTime), 2014-1-ES01-KA201-004401, Erasmus+
- ▶ 2013-2014, "Cross-border Cooperation and Networking through e-learning and Career Development" (CCN), 2007CB16IP006-2011-2-249, Bulgaria-Serbia IPA Cross-border Programme
- ▶ 2010-2012, Competency Assessment and Training for the Uptake of eGovernment Services by Public Authorities (COMPAT.eGov), DE/10/LLP-LdV/TOI/147361, EC LifeLong Learning Program
- ▶ 2010-2011, "Senior Inter-generational Social Capital" (SISC), 142159-LLP-1-2008-1-IT-Grundtvig-GMP, Lead: E.Ri.Fo., EC LifeLong Learning Program

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# “IT World BG” Activities portfolio

- ▶ 2010 - present, "Cisco Networking Academy", Digital Literacy Courses
- ▶ 2014, Deployment of e-Library for the Regional Public Library in Gabrovo, Bulgaria
- ▶ 2012-2013, Deployment and customization of Moodle e-Learning platform for the Bulgarian "Global Libraries" Program
- ▶ 2012, Website of Project “Development for sustainable management and use of forests”, Bulgaria-Serbia Cross-border
- ▶ 2011-2012, National Online Academy e-Learning Platform
- ▶ 2010-2011, "Bulgarian National Schools Network Control Center Support"



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# Erasmus+ Project “E-Classes”

Project aims, partnership and outcomes

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**E**Classes



# Project details

- ▶ **Project Title:**  
“Flip your classes through multimedia enriched apprenticeship simulations and develop e-skills for VET teachers and students to enhance youth employability”,
- ▶ **Project Acronym:** E-Classes
- ▶ **Ref.No.** 2017-1-RO01-KA202-037344
- ▶ **Project Start Date:** 01.10.2017
- ▶ **Project End date:** 30.09.2019
- ▶ **Programme:** Erasmus+, Cooperation for innovation and the exchange of good practices, Strategic Partnerships
- ▶ **Field:** Strategic Partnerships for vocational education and training

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# Project context

- ▶ 22% of 15-year old across EU underachieve in scientific disciplines
- ▶ Significant mismatch between the educational institutions offer and the labour market needs
- ▶ Rapidly increasing demand for digital skills and competences
- ▶ Increasing needs of investment in infrastructure and training for teachers
- ▶ Development of high quality educational resources, including apps and software



# Project aims

- ▶ Develop teachers and trainers enhancing ICT uptake in teaching and learning
- ▶ Access to open educational resources in the education
- ▶ Excellence and attractiveness with increased opportunities for all
- ▶ Improve the attainment of young people and in risk of early school leaving
- ▶ Elaborate, train and experiment the flipped classroom pedagogic model
- ▶ Form companies partnerships for enhancing youth employability
- ▶ Stimulate students' active and creative role
- ▶ Exchange of experiences at EU level both for teachers and students





# Project partnership

- ▶ Applicant Organization (P1): Technological High School of Mechatronics and Automation (LTMA), Iasi (Romania), <http://www.ltma.ro>
- ▶ Partners:
- ▶ P2: Fundatia EuroEd, Iasi (Romania), [www.euroed.ro](http://www.euroed.ro)
- ▶ P3: Confederacion Espanola De Centros De Ensenanza Asociacion (C.E.C.E.), [www.cece.es](http://www.cece.es)
- ▶ P4: Centro Superior De Formacion Europa SUR (CESUR), [www.cesurformacion.com](http://www.cesurformacion.com)
- ▶ P5: Association "IT World BG", [www.it-world.bg](http://www.it-world.bg)
- ▶ P6: Bulgarian Association of Networking Academies (BANA), [www.bana-bg.org](http://www.bana-bg.org)
- ▶ P7: CIPAT, Florence (Italy), [www.cipat.it](http://www.cipat.it)
- ▶ P8: Pixel Associazione, Florence (Italy), [www.pixel-online.net](http://www.pixel-online.net)



# Project outcomes

- ▶ **I01: Guideline on Flipped classroom methodology and how to create and use it at class for science and technological disciplines and transdisciplinary areas**
  - ▶ 1 Guide on flipped classes for VET: 8 thematic areas + 5 transdisciplinary disciplines
  - ▶ 8 video tutorials with presentation of the guideline modules
- ▶ **I03: Flipped classes multimedia lessons**
  - ▶ 10 flipped classes multimedia lessons for science and technological disciplines/ country; 40 lessons;
  - ▶ 5 flipped lessons on transdisciplinary disciplines
- ▶ **I04: Videos on job orientation and integration students-schools-companies**
  - ▶ Network of 12 companies from different working fields;
  - ▶ 12 videos on job orientation and integration students-schools-companies cooperation;
  - ▶ 2 pair “I Am Welcomed, Therefore, I Belong” E-Classes sessions (80 students + 8 teachers)



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# E-classes Learning platform

How to use the training platform and content created within the project

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# Accessing the e-Learning Platform

- ▶ Platform: <https://edu.e-classes.eu>
- ▶ Registration and login procedure
- ▶ Guest access not permitted
- ▶ The registration is with self confirmation via e-mail
  - ▶ Check your “Junk Email” or “Spam” folders
- ▶ Default role after self-registration is student
- ▶ Additional roles (e.g. teacher) can be given by admin or other teacher
- ▶ First page before login: login and all available courses
  - ▶ Courses cannot be accessed without an active account



# First page and site navigation

- ▶ Home page after login - the “Dashboard”
  - ▶ Recently accessed courses (scrolling)
  - ▶ Your active courses overview - progress, upcoming assignments, notifications
- ▶ Top menu:
  - ▶ All courses page - list all courses by categories
  - ▶ Messaging drawer - internal Moodle messaging system with automatic email notifications
  - ▶ Notifications menu - messages, assignments, activities
  - ▶ Profile picture with menu
- ▶ Right side slide-out modules (in Dashboard view)



# Platform navigation and course enrollment

- ▶ Left side menu:
  - ▶ Dashboard page
  - ▶ Site home - all courses
  - ▶ Calendar - events, assignments
  - ▶ Private files
  - ▶ My courses - active enrolled courses
- ▶ Courses enrolment options
  - ▶ Manual - by the teacher or admin
  - ▶ Self-enrolment option - active icon showing this option
- ▶ Enrolling in a course, un-enrolling from a course



# In course navigation

- ▶ “Bread-crumbs” navigation
- ▶ Course left-side menu
  - ▶ Course sections
  - ▶ Participants - access to profiles
  - ▶ Grades book
- ▶ Course discussion forum
- ▶ Main course sections
  - ▶ Resources
  - ▶ Activities



# In-course actions

- ▶ **Student:**
  - ▶ read resources - mark as completed
  - ▶ interact with teacher via activities - assignments, quizzes
  - ▶ messaging, discussion forums - with the other participants
- ▶ **Teacher: edit resources and activities, assignments**
  - ▶ Turning editing mode on
  - ▶ Adding elements, settings, etc.
- ▶ **Non-editing teacher: cannot change the content**
  - ▶ Interact with students
  - ▶ Evaluate assignments - grades





# Resources and activities

- ▶ Resources:
  - ▶ link, file or folder,
  - ▶ HTML page,
  - ▶ labels (text between the resources)
- ▶ Activities (interactive):
  - ▶ Assignments - due date, evaluated by the teacher
  - ▶ choices, quizzes, questionnaires - various automatically evaluated assignments
  - ▶ chat, forum, wiki
  - ▶ surveys, workshops (peer review), feedback, etc.
  - ▶ H5P interactive content - many additional modules



# Platform roles

- ▶ Roles in the platform:
  - ▶ Student
  - ▶ Non-editing teacher
  - ▶ Teacher
  - ▶ Course Creator
  - ▶ Administrator
- ▶ Default role after self-registration is student
- ▶ Teacher roles (e.g. teacher) can be given by other editing teacher
- ▶ Course Creator role can be given by the Admin
- ▶ When creating course, you become its editing teacher

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# “IT World BG” E-Classes flipped lessons

Presenting: Yana Anastasova

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# What flipped classes were produced?

- ▶ Teacher: **Yana Anastasova**
- ▶ School: Specialized high-school “Hristo Botev” in the town of Dupnitsa
- ▶ Level: 9<sup>th</sup> grade students
- ▶ Classes of informatics (IT): Software programming topics
- ▶ 5 flipped lessons:
  - ▶ “The numbers and their representations”
  - ▶ “Graphical user interface design”
  - ▶ “Basic data types in Java”
  - ▶ “Conditional operator”
  - ▶ “Cyclical algorithmic constructions”



# How are these classes different?

- ▶ Focus on practical activities in the class
- ▶ Students work in teams and discuss problems while solving them
- ▶ Online applications for evaluation and testing
- ▶ Students using their smartphones
- ▶ Usage of the interactive whiteboard for practical student activities
- ▶ Using methods like “speed learning” at the end of the classes



# Teacher comments:

- ▶ How the students access the flipped video?

Yana is using Google Classroom - also via mobile. The class has a permanent classroom there. Except the videos, there are the homework assignments, additional resources, discussions and questions gathering.

- ▶ What software tool are being used during the classes?

Yana is using LearningApps (<https://learningapps.org/>) for the interactive parts of the classes - self prepared games, crosswords, tests, etc. And also the specialized software development environment Eclipse.

- ▶ How is IT used during the classes?

Students are using their PCs and smartphones to access the Google Classroom and LearningApps. The teacher is also using an interactive whiteboard - this can be seen in the in-class videos.



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# E-classes career orientation videos

Demonstration of the IO4 outcome of the project

Teodora Borissova, BANA

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# E-classes sessions: “I Am Welcomed, Therefore, I Belong”

Demonstration of the IO4 outcome of the project

Teodora Borissova, BANA

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# Thank you!

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