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''DIGICODE'' APPLIED PROGRAMMING YOUTH CONTEST 2018

The Union of Information Technology Enterprises (UITE) organizes the 4th annual youth applied programming contest – "DIGICODE''.

Objectives:

- to promote the development of algorithmic thinking among the youth
- to turn to a game creator from a game player
- to identify and help the talented youth to develop their abilities
- to discover active schools and individuals

Who can participate?

- schoolchildren

Which programs should be used while programming?

- Scratch / Aghves
- K-turtle / Kria

Scratch. A graphical programming environment developed by the Massachusetts Institute of Technology (MIT) where the schoolchildren, the students, the teachers and the parents can easily work.
Aghves. An Armenian version of Scratch program equipped with new modules, which is also used while programming robots.

K-turtle. A programming environment developed by the Massachusetts Institute of Technology (MIT) where the schoolchildren, the students, the teachers and the parents can easily work. It is a handy tool to provide schoolchildren with basic knowledge of mathematics, geometry and programming.

Kria. An Armenian version of K-turtle program, equipped with Armenian coding, which is also used while programming robots.

What should be done?

- For Scratch/Aghves: fill in the application form for participation here
  Sign up for scratch.mit.edu website using your real name
- For K-turtle/Kria: fill in the application form for participation here
  Sign up for rollapp.com website using your real name
- Create or download the work you have already created
- Shoot a video on your game

Stages:

The deadline for the submission of application forms is the **19th of March, 2018.**
The jury will determine the participants who have passed the final stage. The final stage will be held before 3rd of April.
Each of the finalists will present the work within 4-5 minutes and answer the questions by the jury members.
After the results are summarized, the winners will be announced in a separate nomination.

Nominations:

Scratch/Aghves

- Interactive animation (literature, history, languages, mathematics)
- Computer games (by using inertia, gravity, gravity force, etc.)
- Device integration in the mentioned programs - a new technical solution

K-turtle/Kria

- Rational and justified logical solution (application of geometric formulas)
- Best drawing and design

It is compulsory

- while signing up for Scratch.mit.edu and rollapp.com websites to fill in
  - Your real name, surname
  - school
  - age

- the title of the completed work
- **Interactive animations** should be beautifully made, with a complete script: educational or cognitive (non-linearity of algorithms is an advantage)

Computer games should satisfy the following conditions:

- The initial menu should include start or play, settings, how to play, rules, help, information on the game.
- More than 5 active characters (animated characters that can change the game course).
- More than 10 characters that do not change the game course, but are active.
- More than 3 game levels (worlds)
- Application of more than 5 variables (points, lives, time, etc.)
- Sound effects

Geometric projects should be:

• Two-dimensional space coordinates, drawing of geometric images by entering some preliminary data (one side and the upper angle of the triangle or the volume and height of the prism, etc.),
• Linear algorithms are not accepted
• Drawing of minimum 4 geometric images
• Application of more than 3 variables

Duplicated games will be disqualified, and the team leader will receive a reprimand.
Do not take scripts from Scratch.mit.edu website the algorithms of which you have not written.

Prizes:

• Money awards
• Participation in the training course
• Internship opportunity in an IT company
• A camp trip ticket
• Equipment, parts of a robot, etc.

As literature, use the following websites:
https://wiki.scratch.mit.edu/wiki/Scratch_3.0
https://userbase.kde.org/K-turtle