

The Role of STEM Education in
Today's Society:
Good Practices at UNIZG-FER

Prof. dr. Gordan Gledec

What do we want for our society...

- Future for our pupils
 - There is a variety of well-paid jobs in Europe for young professionals with degrees in STEM area
- STEM @primary schools
 - It is important to govern children to STEM topics in early age
- Parents are our partners
 - They encourage children to develop skills in STEM
- Gender differences
 - Recently, girls express more interest for programing than before
- ...and how do we help to achieve these goals @FER...

ŠUZA

From Highschool to Scientific Community

- The official program of Faculty of Electrical Engineering and Computing for popularization of science and research
- Founded in 2012 by prof. dr. Mislav Grgić and dr. Iva Bojić
- President of the committee prof. dr. Gordan Gledec
- Organizing committee: Tomislav Jagušt, dr. Ana Sović Kržić

<http://naturalstart.org/feature-stories/engaging-children-stem-education-early>

ŠUZA – our main activities

1. Organization of workshops for pupils
2. Organization of workshops for STEM teachers
3. Education of academic staff and our students on how to present research to broad audience
4. Organization of events for popularisation of STEM

Workshops for teachers

- IEEE Teacher in-Service Program (TISP)– FER, December 1-9, 2017
 - Workshops: Networks, Tall Tower Challenge i Give Binary a try
 - Lecturer: Tomislav Jagušt
- Croatian Linux Users' Conference – May 31 – June 2, 2017
 - Lego Mindstorms in (not only) Informatics education
 - Lecturer: Ana Sović Kržić
- Unplugged programming – learning informatics without the use of computers
 - Lecturer: Tomislav Jagušt

Recent events at FER

- Museum Night @FER – January 26, 2018 ([video](#) - XV gimnazija)
 - National cultural event
 - Exposition of old computers, open for general public, over 2000 visitors
- Hour of Code @FER – December 9-10, 2017
 - Global movement for promotion of programming
 - Programming workshops for pupils, 150 pupils, age 5 - 18
- Evenings of Mathematics @FER - December 7, 2017
 - Popular lectures on selected topics in mathematics, 150 pupils, age 14 - 17
- Open Doors @FER, November 25, 2017
 - Exhibition of our research projects, organized visits to laboratories of FER
- ...and many others... @suza.fer.hr

Science Popularisation – new course @FER

- 3ECTS, winter semester 2017/18
- Aim: raise awareness of the importance of communicating science to broad audience
- Introduction to the various methods of approaching topics from the scope of the Faculty of Electrical Engineering and Computing to non-expert audience with the aim of science popularisation and visibility of the Faculty
- Guest lecturers: psychologist and high school teacher
- 24 students created 8 workshops for pupils

First FERgirl @KSET

- 25% of our students are female: we want to raise that number
- Tea-party for future FER students
- Former female students of FER discussed their experiences



Our partners

- Student organisations
 - Istraživački centar mladih
 - eSTUDENT
 - KSET
- Professional associations
 - Croatian Robotic Association
 - RADDAR
 - Bistrići
 - IEEE
- Our academic staff

Our principles

- All events are free of charge
- Organizers are volunteers
- We nurture open doors policy - everyone is welcome!
- We are open for new ideas for STEM popularisation
- We provide support to all events organized by our academic staff
- STEM is fun!