



A lexicon of educational films on the subject of STEM for primary and secondary school students - films4edu

## Films4Edu project closing conference

**Friday, 24<sup>th</sup> of February 2023**

Venue: Faculty of Science and Technology University of Silesia,  
ul. 75 Pułku Piechoty 1 A CHORZÓW, (near Katowice), Poland  
9:30 – 16:00

The conference will be held in English and Polish

### Conference Agenda

9:30 - 9:40	<u>Conference Opening</u> <b>Welcome speech:</b> prof. dr hab. Danuta Stróż, Dean of the Faculty of Science and Technology of the University of Silesia
9:40 - 9:55	<b>The Project presentation</b> dr Aneta Szczygielska – Łaciak, project coordinator (University of Silesia)
10:00 – 10:30	<b>The role of experiment in teaching</b> dr hab. Dariusz Kajewski, dr Marcin Łaciak (University of Silesia)
10:30 – 11:00	<b>Experiment with Films4edu: The use didactic films in teaching chemistry</b> (University of Malaga, Spain, University of Silesia, Poland )
11:00 - 11:30	Coffee break
11:30 – 12:30	<b>Experiment with Films4edu: The use didactic films in teaching physics</b> (University of Zilina, Slovakia, AGH University of Science and Technology, University of Silesia, Poland )
12:30 - 12:45	<b>Teachers about Films4edu – conclusions of project evaluation</b> Prof. Mag. Dr. Markus Ammann, Mag. Katarzyna Ammann-Kapa (University of Innsbruck, Austria)
12:45 – 13:00	<b>Students about Films4edu – conclusions of project evaluation –</b> Jolanta Różowska (Foundation of Malopolski University for Children, Poland )

Projekt współfinansowany przez Unię Europejską w ramach programu Erasmus +





13:00 – 14:00	Lunch break
14:00 – 15:30	<b>Workshops</b> the workshops abstracts below. One of two workshops to choose from
15:30 – 16:00	The visit to the Faculty of Science and Technology's laboratories - optional

The participation in the conference is financed by the Erasmus plus program from the funds of the project "A lexicon of educational films on the subject of STEM for primary and secondary school students - films4edu"

We finance:

1. Flight/travel costs:

- air tickets will be purchased by the University of Silesia as indicated by the participant
- train/coach tickets will be purchased by the participant. Please provide electronic tickets, the cost of which will be reimbursed.

2. Hotel

- 2 nights with breakfast – will be paid by the participant. Please provide the invoice, the cost of which will be reimbursed. The invoice details will be provided later.

3. Allowances and "pocket money" - PLN 600 per participant (approx. 120 EUR)



## Workshops in English

### 1. *Teaching of physics by using video and video analysis methods*

Teaching physics during the pandemic did not allow full-time teaching and became challenging for both students and teachers. The inability to perform real experiments was complicated by the building of new students' knowledge and the development of their abstract thinking. Using video of real physical events and video analysis – mathematical analysis of real events recorded in the form of videos using the program Tracker are a possible substitute for experiments.

During the workshop, we will point out what to focus on and how to prepare for video shoot. We'll also show and explain how the lectures and presentations using videos of real demonstrations combined with video analysis using the interactive program Tracker and active discussion connected with the Peer Instruction method can be used in teaching and learning process. Using FCI (Force Concept Inventory) test and selected questions we'll demonstrate how the misconception can be remove

Peter Hockicko, Jozef Kúdelčík

Department of Physics, Faculty of Electrical Engineering and Information Technology, University of Zilina, (Slovakia)



## 2. *The pill from the microwave? – Synthesis of aspirin and other chemical experiments*

dr inż. Maciej Serda

Wydział Nauk Ścisłych i Technicznych Uniwersytet Śląski w Katowicach (Polska)

During the workshop, participants will prepare an aspirin drug by a simple and fast method in a microwave reactor. They will learn the preliminary procedures of purification of compounds necessary to obtain a chemically pure medicine. During the workshop, participants will receive a silver mirror by carrying out the Tollens test. The workshop will be an opportunity to conduct fascinating practical experiments and introduce the selected issues of organic chemistry.

