

THE 6th INTERNATIONAL CONFERENCE
RESEARCH IN DIDACTICS OF THE SCIENCES

PROGRAMME

THE 6th INTERNATIONAL CONFERENCE
RESEARCH IN DIDACTICS OF THE SCIENCES

PROGRAMME

PEDAGOGICAL UNIVERSITY OF KRAKÓW

KRAKÓW, 2014 JUNE 25th-27th

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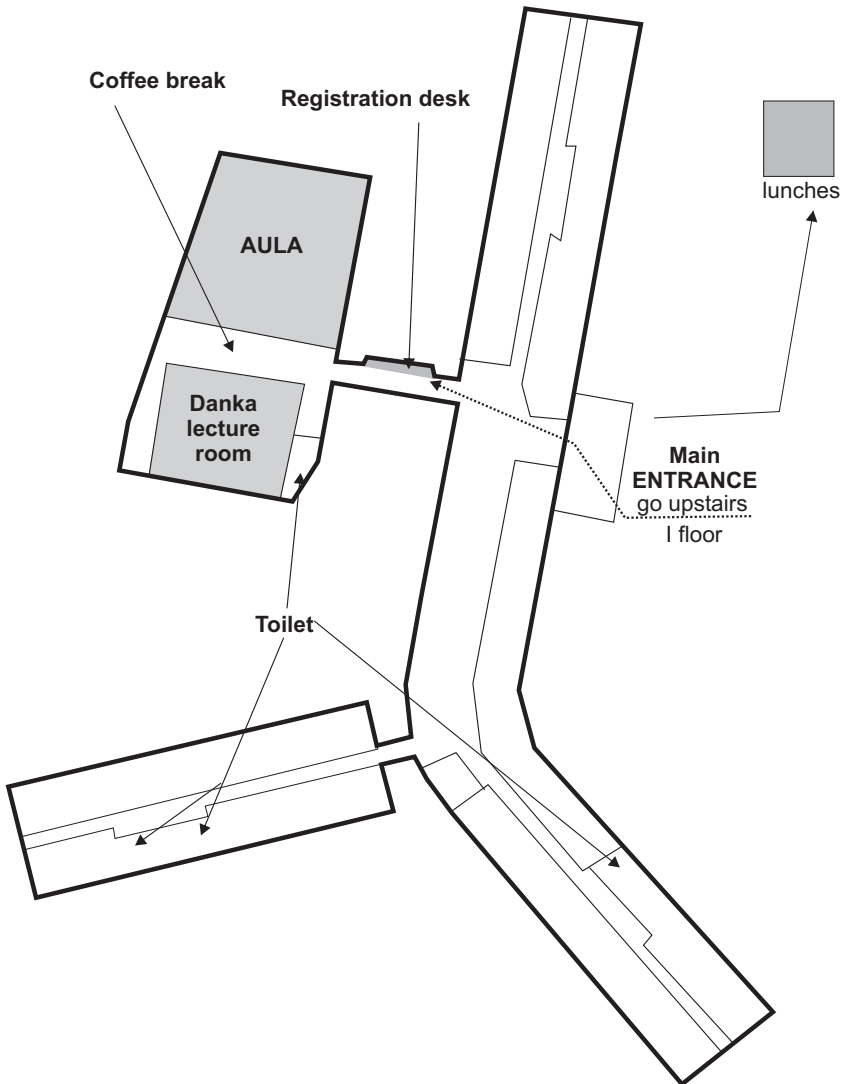
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Please leave your presentation at the registration desk,
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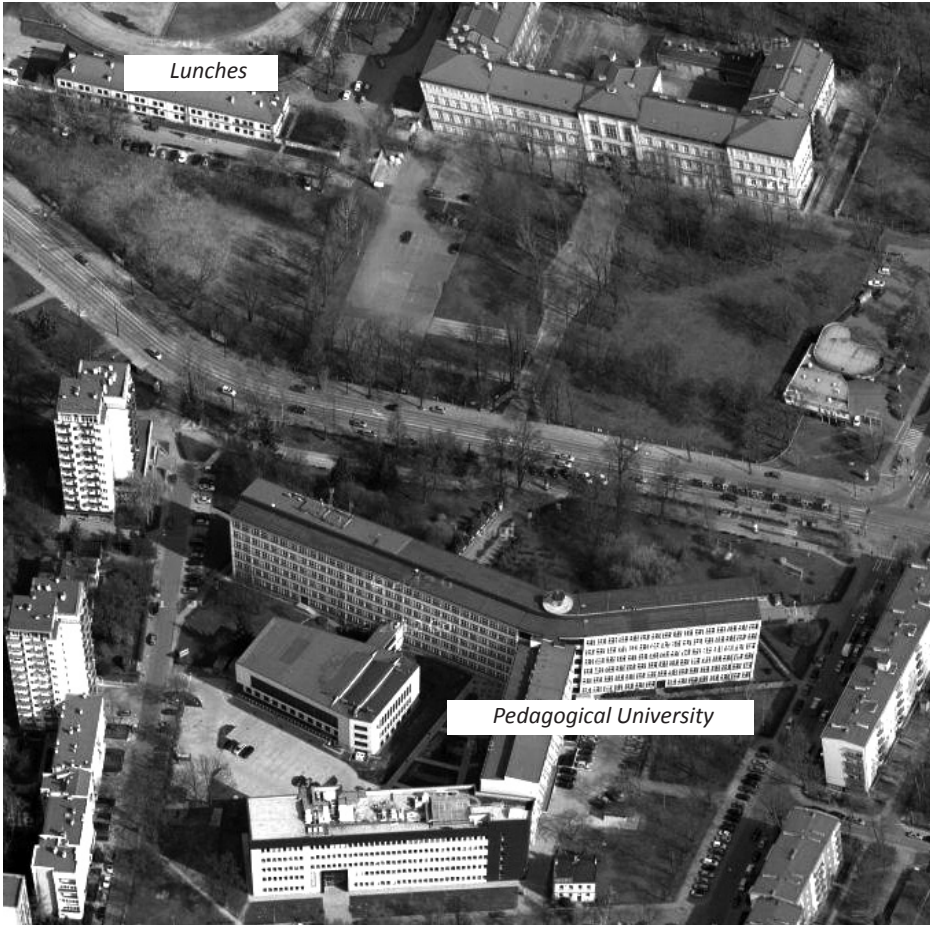
*If you have a poster,
find your poster's number in a conference programme and place
it on an appropriate board:
- on Wednesday and remove it on Friday*

*If you have any questions do not hesitate to ask us.
We wish you a successful conference.*

Maps

Map of Conference Centre
(Main building of Pedagogical University)





Detailed Programme

Timing:

- plenary lecture 60 min (45 min. of talk + 15 min. discussion)
- other oral presentation 15 min (12min. talk + 3 min. discussion)

Wednesday 25.06.2014

7:30 – 8:30 – 1st floor, next to Aula and Danka lecture room

REGISTRATION, Podchorążych 2,

8:30 – 9:00 Danka lecture room, 1st floor

OPENING CEREMONY,

Rector of Pedagogical University in Kraków, Prof. Michał Śliwa

9:00 – 11:00 – Danka lecture room, 1st floor

Plenary lectures - CHAIRPERSON – Prof. Martin Bilek (ENG)

Prof. Katarzyna Potyrała

SYNERGY OF NEW MEDIA AND SCIENCE EDUCATION - EVOLUTION AND PARADOXES

Dr. John Oversby

THE ROLE OF DIAGRAMS IN SCIENCE LEARNING AND AN UNEXPECTED RESULT

11:00-11:30 Coffee break

11:30 – 13:15 Session in sections

section 1A – Danka lecture room, 1st floor

CHAIRPERSON - Prof. Vincentas Lamanuskas (CH) (ENG)

Prof. Hana Ctrnactova, Prof. Věra Čížková, Dr. Dana Řezníčková

IBSE & STUDENTS' SCIENCE SKILLS

Prof. Martin Bilek , MSc Veronika Machkova

CHALLENGES AND PROBLEMS OF ICT SUPPORTED IBL IN CHEMISTRY

Prof. Jiří Rychtera, MSc Hásek Roman

CHEMICAL EXPERIMENT IN THE ACTUAL CENTRE ICT

Prof. Hana Cidlova

THE EXTENT OF USE OF TEXTBOOKS AMONG CZECH STUDENT

Prof. Vasil Hadzhiliev, Prof. Zhaneta Stoykova, Prof. Ivanov Veselin

THE ROLE OF CONTEXTUAL LEARNING FOR THE FORMATION OF COMPETENCES FOR MEDICAL STUDENTS THROUGH PRACTICAL TRAINING IN CHEMISTRY

Prof. Małgorzata Nodzyńska

VARIOUS EXPERIMENTAL TECHNIQUES IN STUDENTS' EYES

section 1B – Aula, 1st floor

CHAIRPERSON – Prof. Katarzyna Potyrała (B & G) (PL)

Prof. R.M. Janiuk

INQUIRY-BASED SCIENCE EDUCATION – KNOWN AND UNKNOWN

Dr. Czesław Puchała

SUBJECT - MATTER OF THREATS AND ENVIRONMENT PROTECTION IN CURICULA OF CHEMISTRY EDUCATION ON DIFERENT EDUCATIONAL LEVELS

Dr. Andrzej Wręczycki

RESEARCH ON APPLYING PHYSICAL MODELS TO ILLUSTRATE SELECTED PROBLEMS OF HYDRO - AND AERODYNAMICS DURING ENVIRONMENTAL PROTECTION STUDIES, SPECIALISATION: TOURISM

BSc Ewelina Kobyłańska

TEACHING CHEMICAL CONCEPTS WITH THE HELP OF FAIRY TALES AT THE PRIMARY SCHOOL LEVEL

BSc Barbara Dyba, Dr. Iwona Stawoska

A TRIP TO THE ZOO AS ONE OF THE METHODS OF OUTDOOR EDUCATION

Dr. Mariola Tracz

THE ROLE TEXTBOOK IN DEVELOPMENT GEOGRAPHICAL TERMS - CASE STUDY ON GEOGRAPHY TEXTBOOKS FOR GYMNASIUM

MSc Wioleta Kopek-Putała

DIFFICULTIES IN THE PROGRESS OF THEACHING AND LEARNING GEOGRAPHY IN A SECONDARY SCHOOL

13:15 – 14:30 Lunch break – “ADESSO”, Podchorążych 3

14:30 – 16:00 Session in sections

section 2A - Danka lecture room, 1st floor

CHAIRPERSON - Prof. Hana Ctrnactova (O & M) (ENG)

Prof. Andrej Šorgo

FOSTERING DIGITAL COMPETENCE WITH COMPUTER SUPPORTED LABORATORY

Prof. Vincentas Lamanuskas, Dr. Renata Bilbokaitė, Prof. Violeta Šlekienė, Dr. Loreta Ragulienė

MATHEMATICS AND NATURAL SCIENCE SUBJECTS' TEACHER COLLABORATION: NEEDS, LIMITS AND POSSIBILITIES

Dr. Jan Šustek

ON A POSITIVE IMPACT OF HOMEWORKS IN A COURSE OF MATHEMATICAL ANALYSIS

Dr. Petra Konečná, Dr. Věra Ferdiánová

MATHEMATICS AT THE BEGINNING OF UNIVERSITY STUDIES

MSc Elizaveta Belevtsova, Prof. Oxana Ryzhova, Prof. Nikolay Kuz'menko

MATHEMATICAL SKILLS TO SOLVE CHEMICAL EXAM TASKS

section 2B – Aula, 1st floor

CHAIRPERSON – Prof. Jan Novotny (CH) (PL, SLO)

Prof. Hanna Gulińska

TEXTBOOKS ON MOBILE DEVICES

Prof. Jan Rajmund Paško

THE IMAGINATION OF THE MICROWORLD - ON THE BASIS OF RESEARCH
CONDUCTED IN RURAL SCHOOLS

Prof. Jarmila Kmeťová

SELF-REFLECTION OF FUTURE TEACHER OF CHEMISTRY

Prof. Ľubomír Held

MODELLING OF MATTER BY EXPERIMENTING WITH GASES - INDUCTIVE APPROACH
TO EDUCATION

Dr. Agnieszka Kaminska-Ostęp

PUPILS' OWN WORK AS FORM OF CHEMICAL EDUCATION INDIVIDUALIZATION

Dr. Małgorzata Bartoszewicz

MOBILE CHEMISTRY – SUPPORTING TEACHING AND LEARNING CHEMISTRY IN
MIDDLE SCHOOL WITH PASCO SENSOR SYSTEM

16:30 – 18:00 – Aula, 1st floor

POSTER SESSION

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Thursday 26.06.2014

9:00-11:00 – Danka lecture room, 1st floor

Plenary lectures - CHAIRPERSON – Prof. Louis Trudel (ENG)

Prof. Grzegorz Karwasz, Dr. Andrzej Karbowski, MSc Krzysztof Służewski

EARTH: A SOMEWHAT BIGGER LABORATORY FOR SCHOOL PHYSICS

Dr. Mordechai Livneh, Dr. Zehava Livneh

TEACHING THERMODYNAMICS: DEMOS TO VISUALIZE THE ABSTRACT

11:00-11:30 Coffee break

11:30-12:45 Session in sections

section 3A – Danka lecture room, 1st floor

CHAIRPERSON – Prof. Hana Cidlova (CH) (ENG)

Prof. Miroslav Prokša, MSc Gabriella Németh

EXPERIENCES WITH IMPLEMENTATION OF PROJECT-BASED LEARNING ENRICHED BY
RUBRICS BASED ASSESSMENT IN TEACHING CHEMISTRY

Dr. Iwona Maciejowska, Dr. Mahaffy Peter

MULTIPLE USES OF CHEMICALS - ARE OUR STUDENTS AWARE OF THEM?

Dr. Csaba Igaz, Prof. Miroslav Prokša

THE MATTER OF SAFETY IN LABORATORY PROJECTS OF SLOVAKIAN PRE-SERVICE
TEACHERS

MSc Kateřina Chroustová, Prof. Martin Bílek

EFFECTIVENESS OF EDUCATIONAL SOFTWARE IN SCIENCE EDUCATION WITH FOCUS ON CHEMISTRY (– FROM THE RESULTS OF RESEARCH PROJECTS)

Dr. Paweł Cieśla

TEXTBOOK AS A TOOL FOR SELF-STUDYING AND EXTENDING THE KNOWLEDGE ON CHEMISTRY AT LOWER SECONDARY SCHOOL

section 3B – Aula, 1st floor

CHAIRPERSON - Prof. Jan Rajmund Paško (O & Ph) (PL, CZ)

Prof. Jan Novotny, Dr. Jindřiška Svobodova

HOW SCIENCE WORKS?

Dr. Roman Rumianowski, Dr. Romuald Małecki, Dr. Izabela Józefczyk

FUZZY LOGIC IN SCIENCE EDUCATION

Dr. Stefania Elbanowska-Ciemuchowska

THE CONCEPT OF EQUILIBRIUM AT ELEMENTARY LEVEL

MSc Łukasz Zając, Msc Nowak Justyna, Dr. Jaworska-Gołąb Teresa

A PRACTICAL APPROACH TO BASIC THERMODYNAMICS

- HEAT PUMP AT INTRODUCTORY LAB

12:45-14:30 lunch break

“ADESSO”, Podchorążych 3

14:30 – 16:00 Session in sections

section 4A – Danka Lecture Room, 1st floor

CHAIRPERSON – Prof. Grzegorz Karwasz (Pf & B) (ENG)

Prof. Louis Trudel, Prof. Métioui Abdeljalil

IMPACT OF A PRIOR DISCUSSION ON THE PARTICIPATION OF STUDENTS IN A HIGH SCHOOL PHYSICS LABORATORY

Prof. Métioui Abdeljalil, Prof. Trudel Louis

PUPILS' REPRESENTATIONS ABOUT THE TRANSFORMATIONS OF ENERGY: THE CASE OF THE ELECTRICAL CIRCUIT

MSc Daniel Mareš

IS THERE DISCRIMINATION AT LESSONS OF PHYSICS?

**Dr. Ewa Stratilova Urvalkova, Dr. Petr Šmejkal, Dr. Marek Skoršepa, Dr. Pavel Teplý,
Dr. Montserrat Tortosa Moreno**

MBL ACTIVITIES USING IBSE: LEARNING BIOLOGY IN CONTEXT

**Dr. Marek Skoršepa, Dr. Eva Stratilová Urválková, Dr. Petr Šmejkal, Dr. Montserrat Tortosa
Moreno, Dr. Hildegard Urban-Woldron**

ACTIVITIES WITH SENSORS IN LABORATORY OF BIOLOGY: STUDENTS' MOTIVATION AND UNDERSTANDING THE ACTIVITIES

BSc Monika Łazarska

EDUCATIONAL GAMES AS A WAY TO EXPLORE THE KNOWLEDGE OF THE NATURE

section 4B – Aula, 1st floor

CHAIRPERSON – Prof. Małgorzata Nodzyńska (CH) (PL, SLO, CZ)

Dr. Piotr Jagodziński, Dr. Robert Wolski

USE OF NATURAL USER INTERFACES IN THE SIMULATION OF CHEMISTRY EXPERIMENTS

Dr. Małgorzata Krzeczowska, Msc Kamil Jurowski, Msc Patryk Własiuk, Msc Anna Jurowska

MNEMONICS METHODS AS ATTRACTIVE TOOL IN THE SCIENCE SUBJECTS (CHEMISTRY, BIOLOGY, PHYSICS, MATHEMATICS) - FROM THE POINT OF VIEW OF THE PUPILS, STUDENTS AND TEACHERS

Dr. Grzegorz Krzyśko

MUSIC AND THE CHEMISTRY LESSONS

Dr. Martin Rusek, MSc Dagmar Stárková

M-TECHNOLOGY IN SCIENCE EDUCATION

MSc Tereza Třeštíková, Prof. Klímová Helena

FOOD CHEMISTRY AND NUTRITION IN BIOLOGY TEXTBOOK FOR SECONDARY SCHOOLS

MSc Veronika Machková, Prof. Martin Bílek

LABORATORY WORK SUPPORTED BY COMPUTER SIMULATION IN SECONDARY CHEMISTRY INSTRUCTION: A CASE STUDY

Social events:

Conference dinner: Kopiec Kościuszki (Kościuszkó Mound), al. Waszyngtona 1

Details at the receptions desk

Friday 27.06.2014

10:00-11:00 Danka lecture room, 1st floor

Plenary lecture – CHAIRPERSON - Prof. Ryszard Janiuk (ENG)

Dr. Roman Rosiek, Dr. Mirosława Sajka

NEURODIDACTICAL APPROACH TO RESEARCH ON SCIENCE EDUCATION

11:00-11:30 Coffee break

11:30-12:45 Session in sections

section 5A - Danka lecture room, 1st floor

CHAIRPERSON - Dr. Paweł Cieśla (ENG)

Dr. Martin Rusek, BSc Iva Metelková

CHEMISTRY TEACHERS' OPINIONS OF CHEMISTRY EDUCATION

Dr. Pavel Teplý

CHEMILUMINESCENCE AS AN INTERESTING IBSE TOPIC IN CHEMISTRY TEACHERS' LIFELONG LEARNING

Dr. Iwona Stawoska, Dr. Agnieszka Kania

THE PROJECT-BASED METHOD AS A TOOL TO UNDERSTAND CHEMISTRY

BSc Anna Michniewska, Dr. Paweł Cieśla

THE INFLUENCE OF E-LEARNING ON METHODS OF KNOWLEDGE ACQUISITION ILLUSTRATED BY THE EXAMPLE OF SCIENCE FACULTY STUDENTS WHO LEARN REDOX REACTIONS BY MEANS OF MOODLE

Dr. Hamidreza Alipourshirsavar, Pantea Alipour, Sanaz Ghavidel

ASSESSING THE EFFECT OF INVESTMENT ON ECONOMIC GROWTH IN IRAN

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