

IoT, Big Data and AI: Innovating STEM Teaching Through Strengthening Teacher Professionalisation

Teacher Training & School Collaboration Programme in the Czech Republic, Hungary, Poland & Slovakia

Participants Booklet

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Mrs Adrienn KORTVELYESI

Hungary

Teacher
Bugat Pal
Secondary
Technical School



Adrienn is a teacher of English at Bugát Pál Secondary Technical School in Székesfehérvár, Hungary. She holds a Master's degree in English Language Literature. She has worked with different age groups and has over 21 years of experience in Education. She is the head of the Foreign Language Department. Adrienn focuses on the latest methods and innovations to improve the teaching methods at her school. She focuses on European Union founded programmes and is involved in the Erasmus Mobility programmes. They have a partnerschool in Hohenmölsen, Germany. They organise trips twice a year and involved in collaborative projects with them.

Dr Heider NASZER

Hungary

Teacher
Bugat Pal
Secondary
Technical School



Heider is a teacher at Bugát Pál Secondary Technical School in Székesfehérvár, Hungary. He holds a Master's degrees in Certified Engineer in Research & Development from the Faculty of Engineering, University of Pannonia, Veszprem, Hungary, and a Ph.D in the field of Chemical Engineering from the Doctoral School of Chemical and Material Sciences from the same university. He also holds a degree in Environmental Engineering from the Faculty of Engineering, University of Veszprem, Hungary. Before joining Bugat Pal Secondary Technical School, he has taken up several positions such as Assistant Professor, Senior Scientist, Laboratory Leader, Teacher, etc. Heider has published more than 40 articles in the FIELD OF chemical and environment. He has also published a book in English titled "Surface Chemistry of Molybdena Containing Catalysts". He also participated in many European Union projects in chemical and environmental field.

Dr Sándor UJVÁRI

Hungary

Physics Teacher
Lánczos Kornél
Gimnázium



Sándor is a secondary school Physics Teacher with a PhD in Education from the Eötvös University of Budapest. His interests include hands on experiments and nuclear physics. He is a member of the Hungarian Nuclear Society and has been one of the leaders of the Nuclear Science Camp for several years. Sándor is the Head of the Education Section of the Eötvös Loránd Physics Society and an editorial board member of the Physics Review. He is also a member of the organizing committee of the Hungarian Science on Stage and organises physics competitions with his colleagues. Sándor has participated in CERN Teacher Training schools for several times. His colleagues, who have experience in Computer Science and tool building, provide a very good background for the projects he is currently working on. His school is in the process of building a student-made muon detector, with the participation of about ten students.

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Ms Gabriella ILLÉS

Hungary

Teacher
Szent Piroska
Görögkatolikus
Általános Iskola



Gabriella is an English Teacher and an Educational IT Specialist. She has a Master's Degree in History and English from the Catholic School in Nyírac nád, Hungary. She also studied School Management at the Budapest University of Technology and Economics. Gabriella started teaching in 1984 and for the past 17 years she has been a Deputy Head Teacher. In 2015 she became a Teacher Trainer in teaching English. She has been managing several international projects, Comenius, Erasmus+, Youth in Action. She also worked for the Educational Authority in Budapest for two years. She focuses on the latest methods and innovations to improve the lessons and integrating students from different social background.

Ms Patricia NANASI

Hungary

Teacher
Szent Piroska
Görögkatolikus
Általános Iskola



Patricia teaches Biology and Chemistry at the Szent Piroska Görögkatolikus Általános School in Nyírac nád, Hungary. She is the Leader Teacher of the 3R (Reuse-Reduce-Recycle) project. She is passionate about innovating pedagogical strategies to teach Science and interested in collaborating internationally with other Science Teachers from the V4 region. Patricia volunteered to help teachers an Erasmus Hungarian project.

Mr Andrzej BRYLA

Poland

Teacher
I Liceum
Ogólnokształcące
Collegium
Gostomianum



Andrzej is an English Teacher at the Collegium Gostomianum. He has been working with teenage students for 17 years and has been developing new teaching skills and methods in the process. Andrzej has taken part in the Comenius Project with five other countries that gave him the opportunity to collaborate with other teachers internationally, exchange experience and learn in a global setting. He also has school collaboration experiences with the Middle East and a few other parts of the world that broadened his intellectual horizons.

Mrs Agnieszka JADWISZCZAK

Poland

Teacher
I Liceum
Ogólnokształcące
im. Kazimierza
Jagiellończyka w
Sieradzu



Agnieszka is an English Teacher at I Liceum Ogólnokształcące im. Kazimierza Jagiellończyka in Sieradz, Poland. She is a graduate of the Faculty of English Philology at the Opole University, Poland. As an active eTwinner she has carried out a number of international eTwinning projects and has been awarded with the European Quality Label for the project "Welcome to Showgart!". She has been coordinating European projects (The POWER Programme) in her school since 2014 that provided teachers of her school to take part in Language and Teaching Methodology courses in Great Britain, Ireland, Malta and Germany.

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Mrs Joanna KAMOCKA

Poland

Teacher
I Liceum
Ogólnokształcące
im. Kazimierza
Jagiellończyka w
Sieradzu



Joanna is an English teacher at I Liceum Ogólnokształcące im. Kazimierza Jagiellończyka in Sieradz, Poland. She has obtained her qualifications from the University of Łódź, Poland. She has been working within the field of teaching children, teenagers and adults since 2005. Apart from a strong focus on new technologies and innovative methods in the classroom, Joanna is passionate about making learning relevant and worthwhile by looking out for inspiration from other cultures and countries. Currently, her research mainly focuses on neurodidactics as well as raising students' and teachers' awareness of this field.

Mrs Jowita KRÓLIKOWSKA

Poland

Headmaster
I Liceum
Ogólnokształcące
im. Kazimierza
Jagiellończyka w
Sieradzu



Jowita is a Headmaster at Comprehensive Secondary School named after Kazimierz Jagiellończyk in Sieradz in Poland. As a Headmaster, she collaborates with a variety of learning professionals, and educational and community organisations. She received an M.A. in Physical Education from Gdansk Academy of Physical Education and an M.A. in Business Studies from High School of Bank in Katowice. Jowita has been working as the Ambassador of eTwinning and trainer of new ICT tools. In this role, she gained knowledge of a broad range of educational programs and experience in international education projects, for example eTwinning, Erasmus +, POWER. During her career, she created various types of innovative educational initiatives for her students. Her international projects was honored with National and European Awards. She was nominated for the title of "Teacher of the Year 2016". In 2021, she was awarded by the Minister of National Education with the highest distinction of the Cross of National Education.

Ms Alicja ŁASKA

Poland

Teacher
I Liceum
Ogólnokształcące
im. Kazimierza
Jagiellończyka w
Sieradzu



Alicja is an English teacher at I Liceum Ogólnokształcące im. Kazimierza Jagiellończyka in Sieradz, Poland. She obtained her Master's Degree in English Philology from the University of Łódź. She is open to new challenges and innovative methodologies with a strong focus on ICT tools. She is eager to continue her professional development through participation in numerous courses, conferences, seminars and workshops related to her fields of interest, including staff mobility courses under the POWER SE projects implemented on the principles of the Erasmus+ Programme. Her aim is to constantly improve the quality of teaching to provide her students with the best development opportunities, turning them into fluent speakers of English equipped with 21st century skills as well as responsible citizens who are conscious of global issues such as climate change impact and the significance of sustainable development.

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Ms Ewa RĘBOWSKA

Poland

Teacher
I Liceum
Ogólnokształcące
im. Kazimierza
Jagiellończyka w
Sieradzu



Ewa is a Biology teacher at high school (students aged 15 to 19) in central Poland. She has over 30 years of teaching experience and she also has extensive professional experience as an examiner. Engaged by a Polish institution directly responsible for the preparation and organization of the external assessment system - state exam in Poland, taken by high school graduates. She has participated in many EU projects. She graduated from University of Lodz, Faculty of Biology and she hold the degree of Master of Science, specialization - Molecular Biology. Additionally, she completed postgraduate studies in environmental protection. For her outstanding achievements in teaching, she was given numerous awards and state decorations, including the award of the Minister of National Education. Over a dozen of her students get to medical college at university every year, whereas others take up studying pharmacy, stomatology, biotechnology, veterinary medicine to name a few.

Dr Aneta BEDNAREK

Poland

Teacher
Liceum
Akademickie Da
Vinci



Aneta is a Chemistry and STEM teacher at Da Vinci Secondary School in Poznan, Poland. She has a D.Sc. degree in Chemistry from the Adam Mickiewicz University in Poznań and a Bachelor's Degree in Environment Protection. Aneta is the author of the STEM Curriculum at Da Vinci Secondary School. She uses innovative methods and techniques like CLIL, SOLE, and project-based teaching method. She has participated in various international projects and training courses, including "Intensive English Course and CLIL for Teachers" in 2021 (Dublin). She tries to educate her students about the relationship between chemistry and other subjects (maths, biology) and how science is related to real life.

Mrs Magdalena KOSACKA

Poland

Teacher
Zespół Szkół
Informatycznych
im. Gen. Józefa
Hauke Boska w
Kielcach



Magdalena is passionate about teaching and received an Award from the Minister of National Education for her outstanding achievements in teaching and educational work. She is a Teacher of Biology and Chemistry and also a certified Secondary School Examiner of these two subjects. She works with children and teenagers. She is a co-author of textbooks on nature and biology as well as the educational research project titled "The Fascinating World of Science." Thanks to the cooperation with the University in Kielce, she got the chance to promote science through the Night of Biologists and the Night of Explorers. She held lectures at the Children's University. She was chairman of the Provincial Competition Committee in Biology for 7 years. She recorded a series of Biology classes for high school students in the project "School with TVP" in 2020. Magdalena is constantly developing her teaching workshop through courses,

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		<p>trainings and new experiences. She is interested in neurodidactics.</p>
<p>Mrs Agnieszka KOWAL</p> <p>Poland</p> <p>Teacher Zespół Szkół Informatycznych im. Gen. Józefa Hauke Boska w Kielcach</p>		<p>Agnieszka is a passionate teacher of English who has been working with high school students since 2007. She was the TELC examiner for 8 years. She regularly uses EdTech tools in her classrooms, and has taken part in a series of workshops on using Microsoft Office 365+. She also took part in several national and EU projects. The latest project she is engaged in is called “An IT specialist on European Market” within the Erasmus+ project. In her work she tries to combine teaching a foreign language with other areas of interest, such as eco and healthy lifestyle. She believes that interdisciplinary teaching will make the students more sensitive to ecological problems in the frame of global sustainable development.</p>
<p>Mrs Tamara Joanna SZWAJCA</p> <p>Poland</p> <p>Teacher Zespół Szkół Informatycznych im. Gen. Józefa Hauke Boska w Kielcach</p>		<p>Tamara is an English teacher who works at the IT Technical College in Kielce, Poland. She has an MA in English Studies and Polish Studies. She is a licensed A-level Examiner and regularly takes part in international projects and exchanges. Her keen interest in technology motivated her to participate in several workshops on Microsoft Office 365+ and holds the title of Certified Microsoft Innovative Educator. She got more interested in issues related to environmental protection to teach today’s generation, the future specialists, about renewable energy. Tamara highly values interdisciplinary teaching combining English with other educational fields. She is a life-long learner and continuously engage herself in various professional development opportunities to improve her teaching practices and lessons for her students.</p>
<p>Mr Mark DANIELS</p> <p>Slovakia</p> <p>Teacher Besst Gymnazium</p>		<p>Mark is a Science Teacher who specialises in Biology, but also teaches Physics and Computer Science. He has taught in various educational settings, and started working as a teaching assistant before moving onto becoming a Science Teacher in the UK in 2019. He moved to Slovakia in December 2020, and has been working with students from age 12-18 at a private bilingual international school. Mark holds a Masters degree in Molecular Medicine from the Imperial College London where his primary focus was in Medicine and Biology. His thesis focused specifically on viral vectors for gene therapy in genetic diseases. He is currently studying for a Masters degree in Education. Mark is a member of the chartered college of teaching in the United Kingdom.</p>

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Mr Peter KORMAN

Slovakia

Teacher
Grammar school
Mikulaš Kováč in
Banská Bystrica



Peter is a Teacher at the grammar school Mikulaš Kováč in Banská Bystrica that has two divisions: The Spanish and the Chinese division. He has been teaching Physics and Geography for more than two years. During his 1st year in University of Matej Bel he was an assistant of the project “Noc výskumníkov (The Night of Researchers)”. For this project he provided experiments of molecular physics and electricity. As a member of this research team, he and his colleagues took initiative to popularise Science subjects. They were successful as their experiments were presented to thousands of people. Another project Peter was a part of was “The International Masterclasses” where he taught students how to analyse and work with data related to particle crash events. Peter considers participating in this project as a great opportunity and he is looking forward to improving his teaching and language skills.

Mr Roman JAKOBEJ

Slovakia

Teacher
Obchodná
Akadémia
Roznava



Roman is currently teaching English at Obchodná akadémia Roznava. Prior to joining Obchodná Akadémia Roznava he taught in a primary school for two years, then in a vocational school for two years. Roman is excited to join this project as this is his first international collaboration project.

Mr Martin AMBROZY

Slovakia

Teacher
Secondary School
of Electrical
Engineering
(SPŠE)



Martin studied Biomedicine at the Czech Technical University’s Faculty of Electrotechnics. Now he teaches programming of Arduino, raspberry Pi, Siemens PLC, basics of electronics at the Secondary School of Electrical Engineering. He is well experienced with designing electrical devices, PCB and also programming in Matlab. Martin participated in various international projects such as VALT, and 3DAH, an Erasmus + program.

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Mrs Zuzana TKACOVA

Slovakia

Teacher & ICT
Co-ordinator
Škola umeleckého
priemyslu Košice



Zuzana Tkáčová is a Computer Science Teacher at the Secondary School of Applied Arts in Košice, Slovakia. She obtained her qualifications both in Artificial Intelligence (AI) and in Engineering Pedagogy from the Technical University in Košice, Slovakia. She has 20 years of experience in teaching Computer Science with focus on experiential learning, project-based learning and inquiry-based learning. She is an author of numbers of STEM teaching materials, projects, articles and research papers. She also works as a Teacher Trainer and as a Lecturer for in-service STEM teachers.

Mr Peter TRUBAC

Slovakia

Teacher
SOS Bernolákovo



Peter is a Teacher of Math, Geography, Ethics, Bioenergetics and renewable sources. He has been teaching for the past 20 years and during this time he has participated in many international collaborative projects for example, ERASMUS, Leonardo, and the ASEF Classroom Network projects.

Mr Ján VOJTÁŠÁK

Slovakia

Teacher
Súkromné
Gymnázium DSA v
Sabinove



Ján is a Teacher of German language at the Súkromné Gymnázium DSA in Sabinov, Slovakia. He obtained his Bachelor's and Master's degree in Geography, German Language and Literature from the Catholic University in Ružomberok. He has been working as a teacher since 2016. Previously he worked as a teacher at a primary school called ZŠ s MŠ M. R. Štefánika in Budimír. He participated in lessons of the project IT Akadémia focused on using the IT technologies in Geography teaching.

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