



"Alexandru Proca" Centre
for the Youngsters Initiation
in Scientific Research
(CICST)



National Institute
for Research & Development in
Electrical Engineering ICPE-CA
Bucharest

Scientific Session of "Alexandru Proca" Centre the ninth edition

June 15th, 2022

J building, 3rd floor, Conference Hall of the National Institute for R&D in Electrical Engineering ICPE-CA
313 Splaiul Unirii, District 3, Bucharest

- PROGRAMME -

Wednesday, June 15 th 2022	
09 ⁰⁰ - 09 ³⁰	Participants registration
09 ³⁰ - 10 ⁰⁰	Opening speech Prof. Dr. Eng. Tudor Prisecaru, <i>State Secretary for Research – Ministry of Research, Innovation and Digitization</i> Dr. Eng. Sergiu Nicolaie, <i>General Director of INCDIE ICPE-CA Bucharest</i> Dr. Eng. Mircea Ignat, <i>Coordinator of "Alexandru Proca" Centre for the Youngsters Initiation in Scientific Research (CICST), INCDIE ICPE-CA Bucharest</i>
Plenary session	
Moderator: Dr. Eng. Mircea Ignat, Coordinator of "Alexandru Proca" Centre for the Youngsters Initiation in Scientific Research (CICST), INCDIE ICPE-CA Bucharest	
10 ⁰⁰ – 10 ¹⁵	✚ Experiments performed on a research topic regarding plant sensitivity (<i>Experimente efectuate în cadrul unei teme de cercetare privind sensibilitatea plantelor</i>) , Alexandra Bratu, 6th grade secondary school student – Secondary School no.17 "Pia Brătianu", Bucharest
10 ¹⁵ – 10 ³⁰	✚ Earthquake issues. Experiments on functional models (<i>Aspecte privind seismele. Experimente pe modele</i>) , Dragoș Giușcă, 7th grade secondary school student – ARC Metropolitan Secondary School, Bucharest & "Alexandru Proca" Center for Youngsters Initiation in Scientific Research (CICST) within INCDIE ICPE-CA Bucharest, Romania
10 ³⁰ – 10 ⁴⁵	✚ Initial elements – a theoretical and experimental research on the medical recovery of the limbs (<i>Elemente inițiale – o cercetare teoretică și experimentală privind recuperarea medicală a membrilor inferioare</i>) , Miruna Neacșu, 10th grade high school student - International Theoretical High School of Informatics, Bucharest & "Alexandru Proca" Center for Youngsters Initiation in Scientific Research (CICST) within INCDIE ICPE-CA Bucharest, Romania
10 ⁴⁵ – 11 ⁰⁰	✚ Approaching a theoretical and experimental research topic on the flat transformer (<i>Abordarea unei teme de cercetare teoretică și experimentală privind transformatorul plat</i>) , Teodor Amilcar Ionescu, 9th grade high school student – "Mihai Viteazul" National College, Bucharest & "Alexandru Proca" Center for Youngsters Initiation in Scientific Research (CICST) within INCDIE ICPE-CA Bucharest, Romania
11 ⁰⁰ – 11 ¹⁵	✚ Research of carbon nanotubes with applications (<i>Cercetarea nanotuburilor de carbon cu aplicații</i>) , Bianca Nemeș and Andrei Darius Dragomir, 10th grade high school students - International Theoretical High School of Informatics, Bucharest & "Alexandru Proca" Center for Youngsters Initiation in Scientific Research (CICST) within INCDIE ICPE-CA Bucharest, Romania

11 ¹⁵ – 11 ³⁰	✚ Preliminary issues regarding a bionic research on some elements and systems of the botanical species with applications (<i>Aspecte preliminare privind o cercetare bionică asupra unor elemente și sisteme din regnul botanic cu aplicații</i>) , Tiberiu Ureche, 10th grade high school student – "Alexandru Ioan Cuza" Theoretical High School, București
11 ³⁰ – 11 ⁴⁵	✚ Prediction of intrinsically disordered proteins functions. Tau protein study (<i>Predicția funcțiilor proteinelor intrinsec dezordonate. Studiul proteinei Tau</i>) , Ioana Mădălina Cărăuș, 11th grade high school student - International Theoretical High School of Informatics, Bucharest & "Alexandru Proca" Center for Youngsters Initiation in Scientific Research (CICST) within INCDIE ICPE-CA Bucharest, Romania <i>Coordinator: Prof.dr. Ștefan Eugen Szedlacsek – Institute of Biochemistry of the Romanian Academy</i>
11 ⁴⁵ – 12 ⁰⁰	✚ A brief introduction to quaternions, transformation matrix and their engineering applicability (<i>O scurtă introducere în cuaternioni, matrice de transformare și aplicabilitate inginerească a acestora</i>) , Victor-Eduard Albei, 12th grade high school student - „Tudor Vianu” National College of Informatics, Bucharest & "Alexandru Proca" Center for Youngsters Initiation in Scientific Research (CICST) within INCDIE ICPE-CA Bucharest, Romania
12 ⁰⁰ – 12 ¹⁵	✚ The theoretical bases of the Fourier transform and its use in the processing of analog signals (<i>Bazele teoretice ale transformatei Fourier și utilizarea acesteia în procesarea semnalelor analogice</i>) , Victor-Eduard Albei, 12th grade high school student - „Tudor Vianu” National College of Informatics, Bucharest & "Alexandru Proca" Center for Youngsters Initiation in Scientific Research (CICST) within INCDIE ICPE-CA Bucharest, Romania
12 ¹⁵ – 12 ³⁰	✚ Telepresence robotics applied in education (<i>Robotica de teleprezență aplicată în educație</i>) , Sebastian Mariș, Paul Bogdan Marian, Patricia Baciu, 11th grade high school students – "Dragomir Hurmuzescu" Theoretical Energy High School, Deva, county Hunedoara, Deva branch of CICST <i>Coordinator: Prof. Paul Țoța - "Dragomir Hurmuzescu" Theoretical Energy High School, Deva, county Hunedoara</i>
12 ³⁰ – 12 ⁴⁵	✚ Approaching a topic on a mini robot for monitoring and operating in the field of firefighting (<i>Abordarea unei teme privind un mini robot de monitorizare și operare în domeniul stingerii incendiilor</i>) , Mihai Dumitrescu, Andrei Moise, 10th grade high school students - International Theoretical High School of Informatics, Bucharest
12 ⁴⁵ – 13 ⁰⁰	Conclusions
13 ⁰⁰	Closing the scientific session