

## HSCI2020 – Program – live online

### Zoom meeting HSCI2020 (July 13 to July 17, 2020):

<https://zoom.us/j/99753480456?pwd=SjlV a3FGbDRyRmk3anp3cG44WjlGUT09>

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#### Monday, 13<sup>th</sup> July 2020

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13.50 - **Opening**

14.00 - **Plenary lecture 1** – Hands-on holography, *Pedro Pombo*

14.50 - **Plenary lecture 2** - The progression of children learning about ‘nature’ in our living world, *Sue Dale Tunnicliffe*

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#### Tuesday, 14<sup>th</sup> July 2020

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12.40 - **Plenary lecture 3** - Hard-to-transport experiments, *Dana Mandíková and Zdeněk Drozd*

13.20 - Maker Education: DuinoGraph Platform applied to a Track with Sensors in the Mousetrap Car Project, *Charles Soares Pimentel, Fabio Ferrentini Sampaio*

13.40 - Physics and Math Integration Using Digital Tools, *Weber HM Feu, FA Castro, JBQ Zuliani*

14.00 - Basic Hands-on Introduction to Holography for Ophthalmology and Optometry Undergraduate Students, *Manuel Filipe Costa*

14.20 - STEM and Collaboration, *Berrak Kocaman, Gürbüz Ocak*

14.40 - STEM Activity: Saving Home, *Gürbüz Ocak, Berrak Kocaman*

15.00 - BlooDrop SOS, Science Opportunity to Schools/Society, *Nuno Francisco, Dinis Ferreira, Henrique Andrade*

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#### Wednesday 15<sup>th</sup> July 2020

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12.40 - Drawing of 1st, 2nd and 3rd Grade Students on the Concept of Non-Livings, *İjlal Ocak, Fatma Güleç Islak, Burak Olur*

13.00 - 1st, 2nd and 3rd Grade Primary School Students’ Perceptions of ‘Living Organism’ Concept, *İjlal Ocak, Fatma Güleç Islak, Nilde Hoccoğlu*

13.20 - Investigation of Disciplined Mind Features of Primary School 4th Grade Students in Terms of Various Variables, *Kerem İçel, İjlal Ocak*

13.40 - Observation of Cognitive Structure of Primary Students towards Values, *Burak Olur, Gürbüz Ocak*

14.00 - Pre-speaking Strategies for Developing Speaking Skills, *Emine Akkaş Baysal, Gürbüz Ocak*

14.20 - Elimination of the Problems in English Reading Skills with Pre-reading Strategies, *Emine Akkaş Baysal, Gürbüz Ocak*

14.40 - Implementation and Evaluation of Cooperative Learning Techniques to Increase Inter-Class Communication of German Course Students, *Gürbüz Ocak, Ulviye Yer*

15.00 - The Opinion of Secondary School Students about Outdoor Learning, *İjlal Ocak, Elif Sarı, Emine Akkaş Baysal*

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## Thursday 16<sup>th</sup> July 2020

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12.40 - **Plenary lecture 4** - Indian Experience on Health and biodiversity in post COVID-19 pandemic, *Pradeep Kumar Srivastava*

13.20 - Preliminary Evaluation of a Serious Game on Biological Invasions, *Sofia S. Oliveira, Ruth Pereira, Paulo T. Santos*

13.40 - Awareness and Knowledge of Portugal Residents about Natura 2000, *Sofia S. Oliveira, Joana Pereira, Paulo T. Santos, Ruth Pereira*

14.00 - Removal of Heavy Metal Ions from Contaminated Water, *Beatriz Santos, Beatriz Carneiro e Mariana Reis*

14.20 - Traffic Lights Technique, *Ramazan Uzunboy, İjlal Ocak*

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## Friday 17<sup>th</sup> July 2107

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12.40 - **Plenary lecture 5** - Hands-on Colour, Jose Benito Vázquez-Dorrío

13.20 - Khoj - Dynamic museum in Ahmedabad, India. For learning, exploring and innovation. *Abhay Kothari, Kathan Kothari*

13.40 - Nanoinventum: Approaching Nanotechnologies and Science to Primary School, *Jordi Díaz-Marcos, Gerard Oncins, Núria López*

14.00 - Candasat I: from a Secondary School to the Edge of Space, *Francisco Javier Redondas Maseda*

14.20 - The Effect of Science and Technology Fair Projects Based on Learning Experiences in Inquiry on Students' Attitude to Science and Technology, *Rasol Abdullah Mirzaie, Fatemeh Shahbazloo*

14.40 - **Closing remarks**

## FULL LIST OF CONTRIBUTIONS

1. *"Encontro com o Cientista"*: informal talks to engage students, Regina M. S. Sousa, Pedro Pombo
2. 1st, 2nd and 3rd Grade Primary School Students' Perceptions of 'Living Organism' Concept, İjlal Ocak, Fatma Güleç Islak, Nilda Hocaoğlu
3. A STEAM activity to celebrate the 500th anniversary of Circum-Navigation around the globe, Fábio Ferrentini, Nuno Charneca, M. C. Pinho
4. Antibio-don't! A hands-on approach to antibiotic resistance: the use of disk diffusion method and bioinformatic analysis of proteins, Iris Sereno, Susana Pereira
5. APPLASTIC: an APP that may help to save the World, Bárbara Fernandes, Beatriz Fonseca, Maria Beatriz Calçada, Rita Couto, Isabel Allen, Nuno Flores, Manuela Assis
6. Awareness and Knowledge of Portugal Residents about Natura 2000, Sofia S. Oliveira, Joana Pereira, Paulo T. Santos, Ruth Pereira
7. Basic Hands-on Introduction to Holography for Ophthalmology and Optometry Undergraduate Students, Manuel Filipe Costa
8. Bioinformatics, a Befitting Tool for e-learning: Potential and Constrains according Teachers' Perceptions, Ana Martins, Leonor Lencastre, Fernando Tavares
9. Bloodrop SOS, Science Opportunity to Schools/Society, Nuno Francisco, Dinis Ferreira, Henrique Andrade

10. Box Ecofriendly – Interaction between melanin and LEDs, André Costa, Emílio Neves, Nuno Francisco
11. Building a Visually Rich Learning Environment to Bridge the Communication Divide in Deaf Education, Iryna Berezovska, Dmytro Vakulenko
12. Can We Use Music as a Useful Teaching and Learning Strategy? A Pre-experimental Design Applied to the Study of Fermentation, Marta Paz, Maria Lurdes Abrunhosa, Luís Calafate
13. Candasat I: from a Secondary School to the Edge of Space, Javier Redondas Maseda
14. Creating of STEM – Equipment: MagLev Train, Kseniia Minakova, Roman Zaitsev, Mykhailo Kirichenko
15. Drawing of 1st ,2nd and 3rd Grade Students on the Concept of Non-Livings, İjlal Ocak, Fatma Güleç Islak, Burak Olur
16. Early Science Education. Discovering and understanding the wonders of Nature, Sue Dale Tunnicliffe
17. Education during the COVID-19 Lockdown: Does the Pandemic Extend the Scope of Distance Learning?, Andrii Semenets, Dmytro Vakulenko , Iryna Berezovska
18. Electric(e) – Plant Microbial Fuel Cell , Luisa Santos, António Parchão, Joana Fonseca, Margarida Alves, Renata Oliveira, Isabel Allen
19. Elimination of the Problems in English Reading Skills with Pre-reading Strategies, Emine Akkaş Baysal, Gürbüz Ocak
20. Emergency Phosphorescence, Beatriz Calçada, Henrique Miranda, Maria Marques, Tiago Castro
21. Energy of Biomass Derived Compounds, Sofia Gouveia Pereira; Wendal W. Souza; Ana Luísa R. Silva; Luísa Santos; Paula Figueiredo
22. Epoxy Jewelry as STEM Project, Tetyana Tykhomyrova, Vladimir Lebedev, Kseniia Minakova
23. *FÁBRICA* and *CIÊNCIA VIVA* School Clubs - innovative partnerships, Carmen Marques Arqueiro, Pedro Pombo
24. Hands-on Colour, Jose Benito Vazquez-Dorrio
25. Hands-on Holography, Pedro Pombo
26. Hands-on STEAM: learning to program in Elementary School using Directed Elaboration, Erica Scheffel, Rubens Queiroz, Fabio Ferrentini Sampaio, CLR Motta
27. Hard-to-transport experiments, Dana Mandíková, Zdeněk Drozd
28. Implementation and Evaluation of Cooperative Learning Techniques to Increase Inter-Class Communication of German Course Students, Gürbüz Ocak, Ulviye Yer
29. In-Depth Study of Physics Phenomena by Connex Approaches, Petronia-Gabriela Moraru, Petrică Moraru, Valică Fotin
30. Indian Experience on Health and biodiversity in post COVID-19 pandemic, Pradeep Kumar Srivastava
31. Informal Learning of Science and Technology from an “Inductive Signatures” Research Project, Adriana Dapena, Paula M. Castro, Francisco J. Vazquez-Araujo, José J. Lamas-Seco
32. Investigation of Disciplined Mind Features of Primary School 4th Grade Students in Terms of Various Variables, Kerem İçel, Prof. Dr. İjlal Ocak
33. Is Ecotourism Truly Sustainable? A Review of the Impact of Tourism on Primates, Rajarshi Saha
34. Khoj - Dynamic museum in Ahmedabad, India. For learning, exploring and innovation, *Abhay Kothari, Kathan Kothari*
35. Let’s Play with the SDGs Toward a Sustainable Future: 2030 is Coming!, Manuel Ballatore
36. Light Activated Surface Cleaning, Isabel Allen, Alexandra Pinto, Ana Beatriz Mendes, Carolina Barbosa, Flávia Garcia
37. Maker Education: DuinoGraph Platform applied to a Track with Sensors in the Mousetrap Car Project, Charles Soares Pimentel, Fábio Ferrentini Sampaio
38. Microplastic Filter – EcoTap, Ana Sofia Ramos, Inês Sofia Magalhães, Matilde Santos, Sofia C. Santos, Diana Paiva, Luísa Meira, Isabel Allen, Marta Correia, Manuela Assis
39. Micropropagation and Agrobacterium-mediated Transformation of Plant Model *Marchantia polymorpha* L., Ana Séneca, Bárbara Pires, Susana Pereira, Cláudia Pereira
40. Mycotoxins in popcorn kernels, Madalena Bártolo, Isabel Allen, Ana Sanches Silva, Inês Oliveira, Inês Dionísio, Margarida Cunha
41. Nanoinventum: Approaching Nanotechnologies and Science to Primary School, Jordi Díaz-Marcos, Gerard Oncins, Núria López
42. Observation of Cognitive Structure of Primary Students towards Values, Burak Olur, Gürbüz Ocak
43. Physics and Math Integration Using Digital Tools, Weber H. M. Feu, F. A. Castro, J. B. Q. Zuliani

44. Pollution Soil Perception and Biodiversity Impact: Can Students Enrich their Scientific Knowledge Using Problem Based Learning?, Maria de Lurdes Abrunhosa, Marta Paz, Clara Vasconcelos
45. Preliminary Evaluation of a Serious Game on Biological Invasions, Sofia S. Oliveira, Ruth Pereira, Paulo T. Santos
46. Pre-speaking Strategies for Developing Speaking Skills, Emine Akkaş Baysal, Gürbüz Ocak
47. Procedures for removal sulfur content from diesel and jet fuel, Isabel Maria Lopes Allen, Nádia Filipa Macedo Ribeiro, Margarida Teixeira da Costa, Martim Reininho Sousa, José Bernardo S. Anacleto
48. Production of Compressed Soil Blocks Using Cigarette Butts and Recycled Paper, Isabel Allen, Luísa Santos, Ana Cavadas, Beatriz Magalhães, Catarina Fernandes, Inês Tavares
49. Production of Magnetic Chitosan Nanoparticles, Ana Leonor Leitão, Gonçalo Primavera, Irina Sá, Inês Martins, Luísa Meira, Isabel Allen, Manuela Assis
50. Project Eco-STOP: Implementation of Green Roofs in the Urban Space, Luísa Santos, Rafael Silva, Pedro Silva, Gonçalo Rocha, Sara Machado, Isabel Allen
51. Removal of Heavy Metal Ions From Contaminated Water, Isabel Allen, Beatriz Alexandra Santos, Beatriz Gomes Carneiro, Mariana Paula Braga Reis
52. Science Teachers' Questioning Themselves, Jose M Fernández Novell, Carme Zaragoza Domenech
53. Seafuel: Seaweed Used as Biofertilizer, Nuno Francisco, Dinis Galhardo, João Araújo, João Sá
54. STEM Activity: Saving Home, Gürbüz Ocak, Berrak Kocaman
55. STEM and Collaboration, Berrak Kocaman, Gürbüz Ocak
56. Teaching Science and Technology through Service Learning Experiences, Paula M. Castro, Adriana Dapena
57. The Effect of Science and Technology Fair Projects Based on Learning Experiences in Inquiry on Students' Attitude to Science and Technology, Rasol Abdullah Mirzaie, Fatemeh Shahbazloo
58. The Opinion of Secondary School Students about Outdoor Learning, İjlal Ocak, Elif Sarı , Emine Akkaş Baysal
59. The Stereotyped Images of Scientists and Science Made by Children are Slowly Changing over the Past Few Decades, Jose M Fernández Novell, Carme Zaragoza Domenech
60. The trend towards physics and its relation to some variables in Students of the Faculty of Science in Palestinian Universities, Mohammed M Shabat, Khitam I. Sahhar
61. The Use of Information and Communication Technology in Higher Medical Institutions in Ukraine: Gaining Experience, Iryna Berezovska, Dmytro Vakulenko
62. Toxetamol: Paracetamol Ecotoxicity Evaluation Using Daphnia magna, Luísa Santos, Inês Silva, Magda Moutinho, Isabel Allen
63. Traffic Lights Tecnique, İjlal Ocak, Ramazan Uzunboy
64. Use of Tracker to study the Free Fall and Vertical Launch, Isabel Penteado, Manuela Pinho, Beatriz Oliveira, Isabel Allen, Guilherme Amaral, Gustavo Jorge, Manuel Oliveira, Leonardo Silva, Paulo Simeão Carvalho
65. Using folklore and sayings as a basis for observing our environment, Denise Joan Balmer
66. WateReuse: an Environment Toilet Flush, Afonso Ramalho, Pedro Veloso, Raul Gonçalves, Tomás Mendes, Isabel Allen, Guy Gonçalves, Madalena Bártolo
67. Why is STEM education important?, Emad Hassan