

Project Presentation Types in the TISF 2023

There are 5 types of student project presentations in the TISF 2023:

Project Presentation Type 1: *General Poster Presentations* (all on-site projects) on February 13th, 2023 or

**Online Oral Presentations* (for online international participants) on February 14th, 2023

Project Presentation Type 2: *Online Project Exhibition* on the TISF 2023 website (all projects) – 2-min video clips and e-posters

Project Presentation Type 3: *Live Oral Presentations* in the meeting halls (24 selected projects) on February 14th, 2023

Project Presentation Type 4: *Oral Presentations* in the TISF 2023 Opening Ceremony (3 selected projects)

(Presided over by Her Royal Highness Princess Maha Chakri Sirindhorn) on February 13th, 2023

Project Presentation Type 5: *Poster Presentations* (25 selected projects)

(Presided over by Her Royal Highness Princess Maha Chakri Sirindhorn) on February 13th, 2023

Notes:

1. Awards will be issued to projects presented in the *General Poster Presentations* (Type 1) and the *Live Oral Presentations* (Type 3).
2. Some online international projects are selected to present their projects in the *Live Oral Presentations* (Type 3), while the others will present their projects in the *Online Oral Presentations* (Type 1) instead of *the General Poster Presentations*.

Announcement of Project Presentation in TISF 2023

Project No.	Project name	School name, Country	Presenter(s)	Type of project presentation				
				1	2	3	4	5
1	Prediction and screening of anticancer peptides against melanoma cells and to reduce melanin synthesis from the peptides of <i>Cannabis sativa</i> seed using bioinformatics techniques	Mahidol Wittayanusorn School, Thailand	Suttithan Suwannoppakun Chuthamas Rattanapongvanich Preechaya Naraprasertkul	√	√	√	-	√
2	The pollination biology of <i>Balanophora latisepala</i> (Tiegh.) Lecomte in Thailand	Mahidol Wittayanusorn School, Thailand	Nithit Chaiwerawattana	√	√	-	-	-
3	The study of red and yellow shades from local plants	Mahidol Wittayanusorn School, Thailand	Tanatchaya Sunpet Kawalin Klugwong Apisara Kawikul	√	√	-	-	-
4	Antifungal and antibiofilm activity of denture soft liner incorporated with ethanol extract of <i>Melastoma malabathricum</i> leaf	Islamic Sciences Demonstration School, Prince of Songkla University, Thailand	Arnas Naengdam Nada Beraheng	√	√	√	-	-
5	To investigate the physiological function of kinesin Kif19A in the olfactory and taste systems of <i>Drosophila melanogaster</i>	Experimental School of BeiHang University, China	Ailin Zhong	√*	√	-	-	-

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6	Mycelium and stubble substrate brick construction and analysis under varying conditions with regression models and machine learning	The Vasant Valley School, India	Ritwick Sapra Shashvat Rastogi Vivasvat Rastogi	√	√	√	-	-
7		Advanced Education and Science Center of Moscow State University (The Kolmogorov School), Russia		√*	√	-	-	-
8	The migration pattern and possible movement of breeding grounds of the endangered oceanic whitetip shark, <i>Carcharhinus longimanus</i> in response to increasing global temperatures.	Camborne Science and International Academy, United Kingdom	Ugne Barasaite Ali Abusara	√	√	-	-	-
9	Can the construction of Oarweed, <i>Laminaria Digitata</i> and Marram grass, <i>Ammophila</i> into an organic fishing net, provide a natural sustainable alternative to the unsustainable traditional fishing nets made from plastics?	Camborne Science and International Academy, United Kingdom	Freya Gillson Jessica Nicoll Ethan Hancock	√	√	√	-	√
10	Curcumin-loaded nanocomplexes alleviates acute kidney injury in hamsters-induced by Adenine	Demonstration School of Khon Kaen University,	Chawanluk Ruangchayajatuporn Yada Pratipanawatr	√	√	√	-	√

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		Secondary (Suksasart), Thailand						
11	Antioxidant power of red, green and yellow bell peppers (<i>Capsicum annuum</i>)	G.T. (Ellen Yeung) College, Hong Kong	Hayden Lam Man Hin Tse Hei Man Chan	√	√	-	-	√
12	Optimisation of growth of microgreens by varying seed density and growing medium	National Junior College, Singapore	Hui Wen How Karthickraj Dhanyashri	√	√	-	-	√
13	Genotype-phenotype assessment of variants of uncertain significance (VUS) in SCN5A Gene with human stem cell-derived cardiomyocytes	National University of Singapore High School of Math & Science, Singapore	Colin Chow Kah Ler Justin Au Heng Yee Khan Mohamed Dhasil	√	√	√	-	√
14	Innovative of plastic nanofiber from polyvinyl alcohol for plant tissue culture	Princess Chulabhorn Science high school Mukdahun, Thailand	Jiranan Sarapat Kamonphat Akkapacha Nicharat Thiralakkhanaphat	√	√	-	-	-
15	Screening of aerobic fibrolytic microorganisms for glucose production from waste paper	Princess Chulabhorn Science High School Lopburi, Thailand	Chonticha Permrunguang Prapawan Ponintra	√	√	-	-	-
16	Effect of population density on burrow characteristics in the fiddler crab (<i>Uca bengali</i>)	Princess Chulabhorn Science High School Trang, Thailand	Chatcharin Janddee Siorn Leekpai	√	√	√	-	-

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17	Epigenetics in the future	St. Odulphuslyceum, Netherlands	Afke van Dijk Doae El Geunnouni	√	√	-	-	√
18	Olfactory influences on behavior in <i>Drosophila</i>	Ritsumeikan High School, Japan	Fusako Tanio	√	√	-	-	√
19	The influences of pH on flower protoplasm	Ritsumeikan High School, Japan	Nanako Ifuku	√	√	-	-	-
20	Development of edible coating from <i>Gracilaria fisheri</i> and tannin of banana peel extracts for extending shelf life of 'Nam Dok Mai' mango fruit	PSU.Wittayanusorn Surat Thani School, Thailand	Waritsara Nateetorn Witsuta Noosing	√	√	-	-	-
21	Screening of Thai red holy basil cultivars for a nutraceutical by bioactive and Eugenol synthase gene expression analysis	Kasetsart University Laboratory School Kamphaeng Saen Campus, Thailand	Nutjirapat Jiraphimukkul Ratchakarn Chandon Kusalin Somritchinda	√	√	-	-	-
22	Development of ant-repellent gel from stevia leaf extract and enhanced with calcium hydroxide from egg shells	Princess Chulabhorn Science High School Loei, Thailand	Ainglada Thonghaw Chanthakan Thongaram Siriyaorn Khunchuen	√	√	-	-	-

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23	Effects of ethinyl estradiol (EE2) on the male and female ratio of small freshwater shrimp, " <i>Paratya compressa</i> "	Waseda University Honjo Senior High School, Japan	Akari Taniguchi Yui Sasaki Mariko Nakajima	√	√	-	-	-
24	Mode of action of antibacterial activity of Galangin plus Vancomycin against drug resistant bacteria	Surawiwat School, Suranaree University of Technology, Thailand	Khwanmanat Uttapa Kwanrada Kurusateian Paphawee Jirapanjawat	√	√	-	-	-
25	The effect of aposymbiotic Aiptasia on its venom composition	Leo Baeck Education Center, Israel	Danielle Sigal Michal Goldeshtein Roni Forkosh Sheyna Girshovich	√	√	-	-	-
26		Demonstration School University of Phayao		√	√	-	-	-
27	Development of bioplastics from starch for indicating spoilage of food	Mahidol Wittayanusorn School, Thailand	Karnpichcha Samutkodom Kittipan Boonchaithanin Chayanun Charoensungnoen	√	√	-	-	-
28	An indicator biofilm for meat product freshness synthesized from sugarcane bagasse with anthocyanin (extracted) by <i>Hibiscus sabdariffa</i>	Princess Chulabhorn Science High School Phitsanulok, Thailand	Jidapa Khanthong Kanyarat Chaisui Kulpriya Masan	√	√	-	-	-

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29	The development of fruit and microgreens smoothies for elders based on antioxidant capacity and sensory evaluation	Mahidol Wittayanusorn School, Thailand	Passavee Losripat Jatupat Jarupokawat Jirachaya Petchprasit	√	√	√	-	√
30	The carbon dioxide converting incinerator	New Generation School Preah Sisowath High School, Cambodia	Ly Kulapati In Empiseysocheata	√	√	-	-	-
31	Evaluation of the effectiveness and relevance of the different methods of synthesis of carbon dots on fingerprint detection	National Junior College, Singapore	Aaryan Aggarwal, Nagar Jayani Atul Thania Del Radovan Lofranco	√	√	-	-	√
32	Development of tri-layer heterostructures for large spin-orbit interaction	Anglo-Chinese School (Independent), Singapore	Dillon Josh Tan Joshua Kay Jian Chen	√*	√	-	-	-
33	Optimization of ultrasound-assisted extraction for nelumbo nucifera petals and its antioxidant activity	Demonstration School of Khon Kaen University, Secondary Level (Mo din daeng), Thailand	Yodsakorn Kornsopa Yada Sittibodeekul	√	√	-	-	-
34	Analyzing the contributions of microbial food production technology to the future food crisis	Hana Academy Seoul, Korea	Chan Yong Shim Jimin Shin Seoyeon Kim	√	√	-	-	-

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35	Synthesis of carbon dots from pomelo peel for fingerprint detection	Mahidol Wittayanusorn School, Thailand	Natdanai Sakdapipanich Thananun Sungprasert Chisa Pechkhajee	√	√	√	-	√
36	Magnetic nanoparticles decorated titanium dioxide nanocylinders for cancer therapeutic delivery	Lukhamhan Warinchamrab School, Thailand	Kanyarat Promkong	√	√	√	-	√
37	The development of shampoo containing phenolic compounds from cashew apple to slow down grey hair process	Mahidol Wittayanusorn School, Thailand	Pakwan Boonprakaikaew Pabhada Charoensit Bua Chantharangsikun	√	√	-	-	-
38	Development and synthesis of B-group provitamins capable of passing through the cell membrane in case of SLC5A6 gene mutation	Moscow South-Eastern School named after V.I. Chuikov, Russia	Alexander Migulin	√	√	√	-	-
39	Synthesis of DNA-binding thiazolopyrimidine systems containing dimethylaminostyryl substituents as fluorescent molecular probes	Moscow South-Eastern School named after V.I. Chuikov, Russia	Danil Rakitianskii	√	√	√	-	-
40	Preparation and applications of mud microbial fuel cells	Tokyo Tech High School of Science and Technology, Japan	Honoka Umeda Sachina Watanuki	-	√	√	-	-

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41	Sawasdee-AMP: Highly efficient, portable and low-cost point of care test kit for future emerging RNA/DNA disease diagnosis	Mahidol Wittayanusorn School, Thailand	Kulpatch Chananam Pakitta Kriangasame Kunat Khongtong	√	√	-	√	-
42	CARBOXAN: ZnONP loaded carboxymethylcellulose/ chitosan (CMC-CS) nanocomposite solution from Azolla and Philippine Diadema savignyi (Blue-Eyed Sea Urchin) as novel coating material for banana fruit	Bansud National High School – Mimaropa Regional Science High School, Philippines	Nikko Lemon Mariano Jesusa Grace Calingasan Shea Fiedalino	√*	√	-	-	-
43	Release rate of caffeine drug delivery with functionalized UiO-66	Korea Science Academy of KAIST	Jimin Kong Jungwoo Kim	√	√	-	-	-
44	Negative Filter: browser plugin for Thai twitter sentiment analysis	Mahidol Wittayanusorn School, Thailand	Nattgarni Aphimookkul	√	√	-	-	√
45	A study of supervised learning for human pose classification with 3D skeleton model	Mahidol Wittayanusorn School, Thailand	Pathomphu Kanapornthada	√	√	√	-	-
46	Life jacket wearing detection system for safety water transportation using deep learning technology	Mahidol Wittayanusorn School, Thailand	Titat Uttawat Jeeranut Songsri	√	√	-	-	-
47	Diagnosis application for Parkinson's disease by hand tremor analysis	Mahidol Wittayanusorn School, Thailand	Boonyavee Wiriyawongwan Nassawan Rungrittidech	√	√	√	-	√

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48	iSupskin, artificial intelligence program for CNN-image classify	Princess Chulabhorn Science High School Satun, Thailand	Panrapee Pandum Natsinee Ruengsiri	√	√	-	-	-
49	The high-voltage tower climbing robot	Experimental School of BeiHang University, China	Sizhuo Zhang	-	√	√	-	-
50		Engineering Science Classroom (KOSEN - KMUTT)		√	√		-	
51	Comparison of the temperature distribution in human eye during treatment with IPL and Laser techniques: Numerical simulation	Mechatronics Department (KOSEN-KMITL), Thailand	Tapanon Maisuk Kanta Patan Promporn Wutthipipattanapong	√	√	-	-	√
52	The Development of artificial intelligence system to detect <i>Mycobacterium Tuberculosis (M. Tuberculosis)</i> From sputum with Acid-Fast Bacillus (AFB) method	Princess Chulabhorn Science High School Chonburi, Thailand	Peraga Puangtong Punnathorn Khunhon	√	√	√	-	√
53	Chok-Anan mango's sweetness prediction system using color-based and AI	Princess Chulabhorn Science High School Chiang Rai, Thailand	Parunchai Keawkhampa Thinnaphat Kanchina Nuttacha Puttrong	√	√	√	-	-
54	Development of a neural network for classifying selected fabaceae family plant leaves	Philippine Science High School – Main Campus, Philippines	Marco Raphael Licalalde Michael Jeffrey Real Sidney Lance Fernando	√	√	-	√	-

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55	Developing application for predicting COVID-19 infection from chest X-ray images using deep learning techniques	Demonstration School Prince of Songkla University, Thailand	Awera Ruampornpanu Finik Palaray	√	√	√	-	-
56	The extension of the assignment problem and its solution	Senior High School at Komaba, University of Tsukuba, Japan	Seiji Hirata	√	√	-	-	-
57	Making Thai script inclusive: universal Thai font	Triam Udom Suksa School, Thailand	Patiparn Sittinisaisuk	√	√	-	-	√
58	Automatic drugs dispenser with distress call system via line for elderly persons	Princess Chulabhorn Science High School Phetchaburi, Thailand	Rungnapa Homkeanchan Pantita Yamplien	√	√	-	-	-
59	Conformity between human and artificial intelligence the effect of AI on human decision-making to the effect of humans on human decision-making in teenagers aged between 15 - 17 years old	Mahidol Wittayanusorn School, Thailand	Natthapat Ratthanarak	√	√	-	-	√
60	A comparative study of three forms of learning media (videos, short articles, and infographics) on their	Mahidol Wittayanusorn School, Thailand	Chinata Kanjanarujvivat Natchapon Worakhunpiset	√	√	-	-	√

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	effectiveness in helping high school students to 'rethink'							
61	Thai traditional music composition using long short-term memory network	Mahidol Wittayanusorn School, Thailand	Phakin Teerawatthanaprapha Peerapat Laoveerathum	√	√	√	-	-
62	Examining the effect of AI on social conformity between adolescents	National Junior College, Singapore	Zo Ey Phua	√	√	√	-	√
63	Derivation of a concrete learn unlearn relearn framework by using cooking as a case study	National Junior College, Singapore	Aida Cempaka Hanif Tanay Jay Nair	√	√	-	-	√
64	3D model of water pollution	New Generation School Preah Sisowath High School, Cambodia	Neth Chan Tepy	√	√	-	-	-
65	A natural extention of 3D catalan numbers	Seoul Science High School, Korea	Donggeon Kim Dongjoo Suh Woojin Kim	√	√	-	-	√
66	Diagnosis of hearing disease using pairs of auditory illusion words	Mahidol Wittayanusorn School, Thailand	Suramit Boonsom Rujipart Thamwirotsiri	√	√	-	-	√

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67	Effect of the planetary magnetic field on the shape of gas giants' polygons based on fluid instabilities principle	Kamnoetvidya Science Academy, Thailand	Pavarit Phanichkul Amada Panumonwatee Jinjuta Paripurana	√	√	-	√	-
68	Agricultural drone	Vientiane Secondary School, Lao P.D.R.	Khemmany Vilayvong Pakasith Sitthivong Phoutthachack Somsy	√	√	-	-	-
69	The study of the correlation between shade with the surface tension and buoyant force of water strider' movement on the water surface	Princess Chulabhorn Science High School Buriram, Thailand	Apsara Reiter Metawe Mantummongkol	√	√	-	-	-
70	The study of dynamics of falling Mahogany <i>Swietenia macrophylla</i> seeds for the development of guidelines for helping victims of flood	Princess Chulabhorn Science High Schools Pathum Thani, Thailand	Aekkorn Panbangna Chitipat Kongtongvattana Supakorn Kajornkiatnukul	√	√	-	-	√
71	Light pollution creates background noise which prevents the ability to see faint objects	Australian Science & Mathematics School, Australia	Eliza Grivell	√*	√	-	-	-
72	Heavy metal (Zinc) measurement machine in RGB color systems with chelate rutin	Princess Chulabhorn Science High School Nakhon Si Thammarat, Thailand	Kantapong Rukpong Kritsanaphong Kaeomueang	√	√	√	-	-

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73	The process of biotechnical product development with the example: resistance clothing	St. Odulphuslyceum, Netherlands	Enes Sunkur Wei Jie Chen	√	√	√	-	-
74	Trial of power generation using river sludge	Waseda University Honjo Senior High School, Japan	Ryotaro Katsumata Chitose Shindoh Kanako Utsumi	√	√	√	-	√
75	Supernovae type Ia and cosmic distance measurement	Manzoumeh Kherad Institute, Iran	Dorsa Alizadeh Otaghvar Kimia Koneshlou	√*	√	-	-	-
76	A Bicycle that minimizes counter-steering	Seoul Science High School, Korea	Ahn Jun-Hyuk Lee Sion Jwa Hee-ju	√	√	-	-	-
77	How can muscle signals be used to control other devices?	John Monash Science School, Australia	Puneet Ram Badireddi	√*	√	-	-	-