

# Australia-Korea Foundation funded Symposium on Intercultural STEAM Education

STEAM: Arts integrated STEM teaching/learning

FREE EVENT / SATURDAY 29TH OCTOBER 2022 8:30AM-6:00PM / MACQUARIE UNIVERSITY, NORTH RYDE, NSW

Year 5-10 teachers and other educators are invited to a free symposium on STEAM learning and program development.



Artist: Yiyoung Joo



## KEYNOTE SPEAKERS

### Dr Chanjong Kim

Professor, Earth Science Education,  
Seoul National University, Korea

Professor Kim's research in the last five years has focused on sustainability and climate change education with an emphasis on social action. He will discuss his research project on adapting citizen science projects to school contexts using technology.

### Dr David Treagust

Professor, Science and Mathematics  
Education Centre, Curtin University

Professor David Treagust is a well-known science educator and researcher who ranks fifth in Australia and 92nd globally in Research.com's list of top social scientists and humanities scientists in the world. His research interests focus on student conceptions, particularly in chemistry, conceptual change, and constructivist teaching/learning. He will speak on multiple representations and conceptual change: suggestions for future research in science, STEM and STEAM subjects.

### Dr Hye-Eun Chu and Dr Sonya Martin

Senior Lecturer, School of Education,  
Macquarie University / Professor,  
Science Education, Seoul National  
University

Dr Chu and Dr Martin are interested in students' classroom and cultural interaction. They will introduce the Australian-Korean STEAM project and present the impact of the project on student engagement in science classrooms.

PROGRAM	
Registration from 8:30am	Coffee & refreshments
9:00-9:15am	Welcome
9:15-9:30am	Symposium Overview
9:30-10:00am	Keynote Speech 1 Dr Chanjong Kim
10:00-10:30am	Keynote Speech 2 Dr David Treagust
	Morning Tea
11:00-11:30am	Keynote Speech 3 Dr Hye-eun Chu, Dr Sonya Martin
	Lunch
1:00-5:15pm	Interactive Workshops These workshops will be facilitated by the Australia-Korea Foundation STEAM Research Team. <b>Workshop 1: OOPs team</b> <b>Workshop 2: Zero energy house</b> <b>Workshop 3: Intercultural Game</b> <b>Workshop 4: SSI-STEAM and Systems thinking</b>
	Refreshments
5:30-6:00pm	Panel Discussion Dr Sonya Martin, A/Prof Michael Cavanagh, Prof Joanne Mulligan, Prof Garry Falloon (moderator), Dr Ric Morante
Closing at 6:00pm	

Link for Registration (by 26<sup>th</sup> Oct):  
<https://bit.ly/mqsteamworkshop2022>



✓ More information and resources will be provided after registration closes (via email)

## GUEST SPEAKERS/WORKSHOPS

**Dr Tae hoon Kim, Dr Yeon-A Son and Dr Ric Mornate**  
Chung Woon High School, Korea / Professor, Science Education,  
Dankook University, Korea / Hurlstone Agricultural High School.  
The OOPs team is a students' environmental club that cares for the Earth. This club collaborated with an Australian team to create and post a video about climate change. This workshop will present and lead discussion on how science teachers' involvement might be minimized in the students' decision making and organization of activities.

### Mr Hyeong Moon Lee, Ms Yi Seul Kim, Dr Hye-Eun Chu and Dr Jin Woong Song

Shinsung High School, Korea / Senior Lecturer, School of Education, Macquarie University / Professor, Science Education, Seoul National University, Korea. This workshop will introduce participants to a unit of lessons in which students in two countries were set the task of designing a zero energy house for each other's country. The goal of the lessons was to develop students' understanding of heat transfer, energy efficiency, and the sun's altitude with reference to the seasons, and at the same time, expose them to a culture different from their own.

### Mr Kieun EOM and Dr Sonya Martin

Earth Science Education, Seoul National University/ Professor, Science Education, Seoul National University, Korea. This workshop will demonstrate possible ways in which game-based tools such as Minecraft and Roblox can be used to create an engaging intercultural STEAM lessons.

### Ms Anna Mang, Ms Katelyn Mills, Mr Kiano Pomente and Dr Hye-Eun Chu

School of Education, Macquarie University. This workshop will introduce teachers to SSI-STEAM (Socio-scientific issues-based STEAM) and systems thinking as a way of connecting science learning to students' everyday lives and promoting intercultural interaction between students. Teachers will learn about the 'Forest Around our School' program and how SSI-STEAM and systems thinking processes were used to select learning materials and sequence lesson activities so as to encourage students to address real-world problems.

AUDIENCE	Y 5-10 teachers and researchers
WHEN	Saturday 29 October 2022 8:30am-6:00pm
COST	FREE
LOCATION	Room 123, 29 Wally's Walk, Macquarie University
CATERING	Lunch and other light refreshments will be provided.
CONTACT	anna.mang93@gmail.com katelyn.mills@mq.edu.au