Sonam Wangchuk, a mechanical engineer turned education reformer from Ladakh will share his thoughts and life story about turning problems into opportunities and innovating using the simplest principles of science and technology to help fellow human beings and to heal the mother earth.

Sonam Wangchuk was born in the trans-Himalayan region of Ladakh in India. Though a Mechanical Engineer by education, he has been mostly working in the field of education reform for more than 27 years. In 1988, just after he finished his engineering studies he founded SECMOL (Students’Educational and Cultural Movement of Ladakh; www.secmol.org), which aims to bring reforms in the government school system in Ladakh. In 1994 he was instrumental in the launch of Operation New Hope, a triangular collaboration of the government, village communities and the civil society to bring reforms in the government schools system. The program involved formation of Village Education Committees to take ownership of state schools, training of teachers in child friendly ways and re-writing and publishing localised text books for Ladakh. As a result the pass percentage at 10th grade (matriculation) rose from the dismal 5% to 55% in seven years and 75% these days. For students who still failed in their state exams he founded the SECMOL Alternative School Campus near Leh, a special school where the admission criteria is failure in exams and not grades. However with the supportive and creative environment at the school, the so called failures have excelled in their chosen fields and risen to international acclaim as entrepreneurs, film makers, politicians, teachers and so on.

As an engineer Sonam Wangchuk has been teaching innovation at the SECMOL Alternative School, where together with the students he designed and built solar heated buildings that are low cost, made of earth/mud but maintain +15 C even when the outside temperature is -25 C in Ladakhi winters.

In order to solve the water crisis facing mountain regions due to climate change and fast melting glaciers he invented the Ice Stupa artificial glacier which stores the wasting stream waters in winter in the form of giant ice cones or stupas and release the water in late spring as they melt... just when farmers need water.

Sonam Wangchuk was granted several awards and titles, such as UNESCO Chair for Earthen Architecture for India 2014, Game Changers Award by Human Resource Club 2014, ‘Real Heroes’ Award by CNN IBN Channel in 2008, ‘Green Teacher’ Award by Sanctuary Asia Magazine in 2005, Ashoka Fellowship by Ashoka: Innovators for the Public in 2002, ‘Man of the Year’ by The Week magazine in India in 2001 and the Governors Medal by the J&K State Government in 1996.