



Technology Innovation Institute (TII) and Sensorium Technological Laboratories (STL) Join Forces on Radiative Cooling Technology for Sustainable Water Harvesting.

Sensorium Technological Laboratories (STL), a spinoff of Vanderbilt University designing and fabricating nanostructured materials with tailored photonic properties, is proud to announce a strategic partnership with the Technology Innovation Institute (TII), a global research center and applied research pillar of Abu Dhabi's Advanced Technology Research Council (ATRC).

Together, they will embark on an exciting project aimed at advancing radiative cooling technology for sustainable water harvesting. Radiative cooling is a cutting-edge technology that, leveraging the natural cooling power of the universe, has the potential to cool surfaces below the ambient air temperature, allowing for the efficient condensation of water vapor from the atmosphere.

This collaborative project, which is initially set to span three years, aims to develop innovative radiative cooling materials and systems that can be deployed in diverse climatic conditions, particularly in arid and water-scarce regions. The goal is to create completely passive cost-effective solutions that can significantly enhance water availability by capturing and condensing moisture from the atmosphere.

Prof. Joshua Caldwell, CEO of STL, stated, "We are excited to collaborate with TII on this transformative project. Radiative cooling technology holds immense promise in addressing water scarcity, and we believe that by combining our expertise with TII's research and development capabilities, we can create game-changing solutions that benefit communities and the environment."

Prof. Simone De Liberato, CTO of STL, expressed enthusiasm about the project's objectives, saying, "This collaboration with TII opens up new horizons for sustainable water solutions. By harnessing atmospheric humidity we aim to improve water availability, especially in regions where water scarcity is a critical issue."

Dr. Vincenzo Giannini, Acting Chief Researcher of TII, underscored the significance of this partnership, stating, "At TII, we are committed to pioneering technology solutions that address global challenges, and water scarcity is undoubtedly one of the most pressing issues facing humanity today. Our collaboration with STL aligns with our mission to make a positive impact on the world by harnessing the power of innovation and science."