

## Green Greenwich:

Showcasing our University of Greenwich Community

### Meet Professor Colin Hills & Dr Nimisha Tripathi : A Collaborative Journey Toward Environmental Transformation and Carbon Mineralization Innovation.



## ABOUT

Professor Colin Hills had been developing technology to mineralise CO<sub>2</sub> for environmental remediation and in 2014, Dr Nimisha Tripathi joined to apply this innovative technology in India, where real social and environmental change can be created. What started as collecting banana peels and orange waste from the students at the University of Greenwich, has led to multiple collaborations with research centres internationally, Royal Society grants, multiple research papers and a collaboration with Carbon8.

## WORK

Colin uses geological inspiration; influenced by the history of our Earth's formation, locking in large amounts of carbon into its natural material. The technology mimics this process by mineralising CO<sub>2</sub> from biomass waste, creating a carbon-negative material. There's huge potential in finding value in waste, not only to reduce emissions, but to create economic opportunity for countries with large amount of biomass waste which can lead to societal benefits. With over 100,000 tonnes of biomass waste in the UK and millions of tonnes of industrial waste in India, this circular initiative has the opportunity to reduce global carbon emissions by 5-15%, making this an opportunity for real-world transformation.

## SDGs

The science is irrefutable. The prospect of staying within 1.5° is slipping away and this type of systems change is necessary in the UK's and world's mission to reach net zero by 2050.



**Nature is my teacher.**

Prof. Colin Hills

**Ecosystem for everyone.**

Dr. Nimisha Tripathi

**7** AFFORDABLE AND  
CLEAN ENERGY



**12** RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



**17** PARTNERSHIPS  
FOR THE GOALS

