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THE SCAN PYRAMIDS PROJECT

Could New Technologies reveal 4500 years' mystery
of the Great Pyramid of Cheops in Egypt ?

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Many theories and hypotheses have been proposed trying to understand how the Great Pyramid of Cheops was built. None of them has proved conclusive so far. Could New Technologies reveal the mystery of one of the Seven World Wonders? This is what the ScanPyramids project is about. The project was launched in October 2015, under the authority of the Egyptian Ministry of Antiquities, initiated, designed and coordinated by the Faculty of Engineering at Cairo University and the HIP (Heritage, Innovation and Preservation) Institute. It is a multinational project (Egypt, Japan, France and Canada), using the most recent non-invasive and non-destructive techniques to "look" through the Pyramids and detect unknown significant voids. Infrared thermography, Muon-Radiography and 3D Reconstruction, Modelling and Simulation are used to complement each other.

Two main discoveries have been confirmed and published: an intriguing internal structure by the north entrance of the Pyramid and a large void above the Pyramid's grand Gallery. These discoveries confirm the potentiality of Muon-Radiography, which measures the flux of muons, one of the components of cosmic rays constantly bombarding our planet, as a new and powerful Physics technique applied to Archaeology.

Prof. **Hany Helal** is Vice-president & co-founder of the Heritage Innovation Preservation Institute, Professor of the Faculty of Engineering at Cairo University and former Minister of Higher Education & Scientific Research of the Arab Republic of Egypt.



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