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Daniela de Paulis IU0IDY

Visual Moonbounce and COGITO in Space

Moonbounce is a technology that allows sending radio signals from one location to another location on Earth, using the Moon as a natural satellite. Since its introduction in amateur radio, the Moonbounce technology has been used for sound, voice and Morse code signals.

In 2009 I got in touch with the CAMRAS team at the Dwingeloo radio telescope (NL) and proposed them to collaborate in a performance during which images and videos would be sent to the Moon and back in real time. This was the start of what I called 'Visual Moonbounce', a technology for which I employ the Slow Scan TV in a visually engaging process that turned the technical tools into a highly communicative medium for the specialists as well as the general public. The Visual Moonbounce technology has revolutionised the international uses of amateur radio, as well as the educational and artistic fields, bringing amateur radio to new audiences.

I first used the technology in OPTICKS, a live audio-visual performance between the Earth and the Moon, during which images usually submitted by the audience, are sent to the Moon and back in real time using several antennas. Presented in collaboration with CAMRAS between 2010 and 2019, OPTICKS used to be streamed live from the cabin of the Dwingeloo radio telescope. The live event has now taken a new form and it travels all around the world, engaging specialists and the general audience in a theatrical setting.

Together with OPTICKS, I developed several other art projects using the Visual Moonbounce technology, including 'le Voyage dans la Lune' (2011), 'Blue Marble' (2014) and 'The Family Portrait' (2015). My ongoing project "COGITO in Space" (2013) and its unique and highly innovative combination of radio transmissions with EEG (electroencephalogram) technology and virtual reality, also employs the Moonbounce technology.

References

D. de Paulis, *Visual Moonbounce: Videos and Images in Moonbounce Technology* (EME 2012 conference catalogue, Cambridge UK, Radio Society of Great Britain, Bedford UK, 2012)