

RRI Takes First Step to View Birth of the Universe

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Bangalore: The Raman Research Institute (RRI), in partnership with US Universities, Harvard and MIT and the Universities of Australia and New Zealand, has achieved a significant milestone. It has successfully built and commissioned the Murchison Widefield Array (MWA) in the Australian outback, which is a radio telescope that is a precursor to the Square Kilometer Array (SKA).

India is a member of the International SKA, a next-generation new-technology Radio Telescope that is being built across the continents of Australia and South Africa.

RRI organised an event on Monday which was addressed by Prof R Subrahmanyan, Director, RRI, Prof Brian Schmidt, who won the Nobel prize in Physics in 2011 and Australian High Commissioner, Patrick Suckling.

The primary goal of the just completed telescope is

to view the birth of the first stars and galaxies, the 'cosmic dawn'. The telescope is now entering the operational phase for getting a deep insight into this key problem in modern astrophysics.

Professor Ravi Subrahmanyan, director of the RRI said, "We are delighted to

The telescope has begun gathering the weak radio signals from deep space

participate in this courageous global enterprise. The creation of the MWA is a technological marvel that will help humanity take the first exploratory steps into times in our cosmic history that have remained inaccessible to date. It will enable astronomers to glean insights into the Milky Way and galaxies beyond, pulsing and exploding stellar objects and the influence of the Sun on inter-planetary space

weather close to the Earth."

The telescope has begun gathering the weak radio signals from deep space that will be analysed over the coming years by scientists at RRI and in the US and Australia using parallel computing systems. These analyses are expected to reveal a first glimpse at how the early universe transformed dramatically as the 'First Light' from the first stars and galaxies that formed in the primordial universe lit up the 'Dark Ages' and our Universe emerged into the 'Cosmic Dawn'.

Ram Subrahmanyan, Public Relations Officer, RRI, told Express, "The scientists working for the project in RRI are all Indian. Professors Ravi Subrahmanyan, Uday Shankar, K S Dwarkanath, P Prabhu, A A Deshpande and about four engineers are on this project. They will try and find out how the whole thing began; how our Universe came into being after the Big Bang."