

Square kilometer array telescope

[Science](#), [Astronomy](#)



On 25th may scientists in Africa launched a new radio telescope which is connected to the world's first optical telescope, now this telescope will help in understanding and studying the formation of the galaxy. The gadget shapes some portion of the Square Kilometer Array (SKA) venture in the remote Karoo desert, which will be the world's most capable and powerful radio telescope framework. When this telescope becomes fully operational it is going to be the most powerful telescope (50 times) than any of the telescopes which are being used right now. South African deputy president David Mabuza said that this telescope is the largest telescope of its own kind in the entire world. The resolution and the quality of image delivered by this telescope are 50 times more than the Hubble space telescope. He also said that this day is a very important day for Africa as they have hit a huge milestone and will now make contributions to the civilization of the world.

In any case, the combination of MeerLITCH, in the residential community of Sutherland, with MeerKAT, likewise in the scantily populated North Cape territory, will permit concurrent investigation of infinite occasions as they happen. Because previously the scientists had to wait for a cosmic incident to take place so that it can be picked up by a radio telescope and then later they could work out on their observations. Paul Groot from the Radboud University in the Netherlands said that they are listening and observing the sky at the same time and this feels really good this concept is totally a novel concept. " This is the eye, with the MeerKAT being the ears as a radio telescope. It is fabulous to perceive what astonishing perspectives it produces."

The team which was working on this project comprised of scientists from South Africa Dutch and British. They had been working on this project for the past 6 years. “ It is the first occasion when you have a telescope that will track a radio telescope so that if there are disclosures that are made, you will have the capacity to develop,” Phil Mjwara, executive general in the South African service of Science and Technology.

The optical telescope, worked in the Netherlands and dispatched to South Africa, utilizes a principle reflect only 65 cm in distance across and a solitary 100-megapixel identifier estimating 10 cm x 10 cm.

Location of the Telescope

The SKA will contain 3000 dishes which will be spread over an area of a square kilometre. And will cover landscape across a few African nations, and in addition Australia, to enable stargazers to peer further into space with unparalleled detail. The SKA, which is required to be completely operational by 2030, will investigate detonating stars, dark gaps and hints of the universe’s birthplaces somewhere in the range of 14 billion years prior.

The telescope is situated in a white dome-shaped building which is made of carbon fibre so that it can be protected from temperature fluctuations because it is situated in the desert. The reason why they chose Karo dessert was that it has clear skies almost zero pollution and has a dry climate.

“ The investigation of exploding stars over the universe will help us gaining new dimensions,” said University of Cape Town teacher Patrick Woudt, a senior researcher dealing with the telescope.

With the help of MeerLICHT astronomers will be able to see an area which is 13 times larger than the size of the moon, and will help in picking up objects one million times faster than is conceivable with the human eye.

MeerKAT telescope on Friday captured a panorama and showed the clearest view of a black hole which is situated in the centre of the Milky way as indicated by the South African Radio Astronomy Observatory. The telescope is being worked by a worldwide consortium, including Australia, Britain, Canada, China, India, Italy, New Zealand, Sweden and the Netherlands.

Other African nations included are Botswana, Ghana, Kenya, Madagascar, Mauritius, Mozambique, Namibia and Zambia. South Africa has contributed 3.2 billion rands (\$240m) to the telescope so far.

A month ago, researchers connected an intense optical telescope, MeerLITCH, fabricated 200km south of Carnarvon, with the MeerKAT which will allow for stimulations and radio investigation of cosmic events as they occur.