

## I.1 : Inauguration of North Gate of RRCAT

RRCAT is the largest R&D Centre in the country in the area of particle accelerators and lasers. The campus has a large technical area and the present laboratories, facilities and residential complex have been built in its south-east part. The Centre has plans for taking up future mega projects, like the Indian Spallation Neutron Source and a high brilliance synchrotron source, which will occupy a large area extending up to the northern boundary of the campus. A new gate has been constructed at the northern end of the campus to facilitate transportation of heavy materials for large scale construction activities for these programmes. This new gate will provide a connection of the campus to the four-lane National Highway NH59 (locally referred to as Dhar Road), which connects Indore to Ahmedabad. Two stretches of road have also been built; one a 380 m long road connecting the North Gate to this highway and a 170 m long road, which was cut through hilly terrain to connect the gate to the existing road in the technical area. The gate will also allow easier access to Indore airport. The North Gate was inaugurated on July 26, 2014 by Dr. R.K. Sinha, Chairman AEC & Secretary, DAE, Government of India, who commended the Centre for taking this step of long term importance.



*Picture I.1.1: A photograph taken during the inauguration of the North Gate of RRCAT on July 26, 2014. Dr. R. K. Sinha, Chairman, AEC & Secretary, DAE, and Dr. P. D. Gupta, Director RRCAT are seen along with RRCAT staff members.*

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## I.2 : Construction of NISARGRUNA Biogas Plant in RRCAT

Nowadays, waste disposal is one of the major problems being faced by all residential areas. If waste is not managed properly, it pollutes land, ground water and surface water bodies; poses health hazards; and changes climate. On the other hand if waste is managed properly, it can become a boon from curse.

The biodegradable waste can be processed properly to maintain natural balance of essential elements in the environment. A NISARGRUNA Biogas Plant (Picture I.2.1) was constructed in RRCAT to solve the problem of managing garbage collected from 956 houses and various public buildings. Earlier, the Construction & Services Division (CSD) of RRCAT used to struggle to dispose of more than 1000 MT of garbage generated annually in the colony area.



*Picture I.2.1: A view of NISARGRUNA Biogas Plant in RRCAT*

The concept and design of NISARGRUNA Biogas Plant is developed by Dr. Sharad P. Kale, Head, Nuclear Agriculture and Biotechnology Division of BARC, who has been honoured by Government of India with a Padma Shri Award in the Discipline of Science and Engineering. Using a combination of aerobic and anaerobic processes, the NISARGRUNA Biogas Plant processes faster and better degradation of the biodegradable waste such as kitchen waste, grass, dry leaves etc. into high quality manure and methane gas. The methane gas can be used as cooking fuel.

Waste management in RRCAT includes separate collection of wet garbage and dry garbage from individual dwellings, public buildings, dumping plastics and glass in separate common bins by concerned individual, transporting the segregated waste for further processing, recycling or disposal as the case may be and monitoring of waste materials.