



Establishment of Electric Crematorium in Hyderabad District: A Comprehensive Study

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Abstract

Cremation is the use of high heat to transform the remains of a deceased person into ashes. The electric cremation process happens in a specially designed cremation chamber which holds one deceased person and exposes them to high heat for around two hours. This paper throws light on the concepts such as cremation, electronic crematorium, electric cremation process, and COVID-19 horror in Hyderabad. This research paper also highlights advantages of using electric crematorium, India's first multi-faith crematorium in Hyderabad, suggestions and conclusion.

Keywords: Covid-19, cremation, electric crematorium.

1. Introduction

During the epidemic of covid-19, there was a sudden increase in death rate which has a prominent increase in the usage of burial grounds. This has led to space shortage in many places for cremation or for burying the bodies. This led to increase in the demand of electric crematorium served as boon in disguise in many of the families in spite of losing their loved once. A crematorium is a venue for cremation of the dead body. Latest crematorium contains at least one cremator (also called as a crematory, retort), a purpose-built furnace. Many people have opted for electric crematorium has which reduced the waiting time in the burial ground. In this situation the modern crematorium which is a purpose build furnace came into work. In electric cremation wood is not used to burn the body and there are no gas emissions. During covid-19 period this electric crematorium served the purpose in unconventional way by saving natural resources like wood, kerosene, ghee. edible oil etc. Also stopping spread of virus cremation of dead bodies and this was the, most optimum use for the covid-19 hike time.



1.1 Review of literature

Hadders (2018) stated about cremations in Nepal which are performed with open pyres. Cremations are fluid public events that are coordinated and supervised by family members, local groups, and ritual specialists. The purpose of cremation was underlined in the article. In this article highlights the purpose of cremation is to purify and free the deceased's spirit from the body in order to assure a rebirth in another realm, to ensure the soul's safe voyage to paradise, and to transform the soul into a friendly ancestor rather than a haunting ghost. According to the report, the Pashupati Area Development Trust launched Nepal's first operational contemporary electric crematorium on January 24, 2016, near the Pashupatinath temple on the holy river Bagmati, 5 kilometres northeast of Kathmandu. The author of this article stated that the primary reason for Pashupati Area Development Trust to establish an electric cremation to reduce river pollution, carbon dioxide emissions, and deforestation.

Arnold (2016) stated that the human body cremation and urban garbage incineration are two interconnected examples of technology that use the destructive power of fire. Rather than effortlessly granting western methods of burning the dead or disposing of urban garbage, studies reveal how culture and environment inhibited or prevented their advancement and favoured the survival or re-articulation of pre-existing technological advances practises and socio-political infrastructure in which they were embedded.

1.2 Research Gap

Many researchers from all around the world had conducted research on cremations and crematoriums. The funeral home sector commonly employs natural gas-powered cremators, which are classified as a fossil fuel energy source and contribute to carbon dioxide emissions that contribute to global warming. Furthermore, in India and other Asian countries, it is typical to cremate in an open area where a large amount of wood is used to carry out a cremation. As a result, there will be deforestation. A proper study on the use of electric crematoriums has not been done, and this research study is being conducted to address the research gap.

2. Objective of the study

- To study the role of electric crematoriums during Covid-19.
- To study the advantages of using electric crematoriums.
- To know the process of body cremation in electronic crematorium.
- To study the role of government in establishing electric crematoriums.
- To know about India's first multi-faith crematorium in Hyderabad.

3. Research Methodology

Primary data and secondary data have been collected and used for the study.

Most of the information is collected through primary source by discussing with the people. Secondary data is collected through internet, literature reviews, websites and reports.

4. Limitations of the study

- This study is restricted to electric crematorium in Hyderabad district only.
- Collecting the data from the caretaker working in the graveyard was not so easy.
- Information needed was not clearly and properly provided by the higher officials.
- Certain values are based on assumptions.

5. Electric Cremation

Electric cremation is not a new concept in India. In January, 1989 it was commissioned as a part of Ganga Action Plan (Phukan, 2017). It has already begun for river-friendly cremation. Electric crematoriums were built in certain urban cities around the country to protect the environment. Electric crematoriums are being supported by the government, non-governmental organisations (NGOs), and environmentalists (Phukan, 2017).

6. Government and Electric Crematoriums

Government is planning for installing large number of electric crematoriums in the city in addition to existing six run by the Greater Hyderabad Municipal Corporation (GHMC). Officials are searching for locations suitable for installation of an electric crematorium with advanced technology within the GHMC area. Sources informed that a site in the city that comes under the Medchal - Malkajgiri district is being tentatively considered. Efforts are on to see that the crematorium is in place within a couple of months. Though six electric crematoria have been installed in the city by GHMC, spending crores of public money, not one among them is ready for use for the civic body when it needed the most. GHMC had installed electric furnaces long ago at Amberpet and Bansilalpet cremation grounds, while modern electric crematoria were launched at S.R. Nagar and Punjagutta graveyards about a decade ago, say officials.

All the six are lying non-functional for a long time now, they informed attributing it to high maintenance costs. A proposal three years ago, to privatise the maintenance of these facilities has not taken off due to the unknown reasons. Wherever the electric crematoriums have come up, residents nearby have risen in protests complaining of smoke, stench and pollution. At the same time, electric crematoriums set up by private trusts have been running very well, and are maintained in good shape. Mahaprasathanam at Jubilee Hills and Swarg Vatika at Thirumalagiri are two such crematoriums that are offering decent funeral services in good ambience. Absence of functional public crematoriums with electric furnaces has become an insurmountable issue, especially in view of the influx of dead bodies due to rampant Covid-19 cases in city.

7. Electric crematorium

❖ Efficient Electric Cremator

Incineration is the initial stage in the cremation process in the Electric Cremation. The furnace, also referred to as an incinerator, is a high-powered furnace. (*electric cremation also called - Google Search*). Electric incineration is the first stage of a cremation performed in an electric cremator. The electric incinerator or cremation furnace is a hot furnace. The body will be put into the so-called retort, or combustion chamber. There are holes at bottom of the furnace chamber and refractory bricks that can tolerate large temperature changes line the crematory. Air can flow via these openings to speed up or cool the cremation process. An ordinary 400 Volt, three-phase electrical outlet will do for the electrical connections in an electric cremation instead of a special fitting. Smoke and smells have been eradicated due to the installation of equipment that stop any dispersion from the cremation chamber. As a result, a cremation filter system is set up. Cremation requires 60 to 90 minutes to finish, based on body size and other biological aspects.



❖ Electric cremator & filter installation

A cremation filter mechanism can be found behind the electric cremation furnace. In this high-tech cremator filter system, gases and flue can be cleaned. An electric cremation oven with a venturi scrubber can be selected by a crematory. This device is designed to effectively atomize the liquid used to clean the gas stream by harnessing the energy from the entering gas stream. Wet scrubbers are a type of technology that is used in the treatment of air pollution. Before being discharged into the chimney, the toxic gas and other pollutants are piped out of the cremation chamber and treated with a venturi scrubber and water treatment. Effluent Treatment Plant (ETP) system can take care of treated water and other technologies can be used to storage or recovery of heat / energy.

❖ The Cremation Process

Modern crematoriums employ industrial furnaces designed specifically for cremation. It takes 2-3 hours to complete the process. The crematory will take care along the way to ensure; proper identification of the deceased, the operator is safe, and the deceased is treated with dignity and respect (Funeralwise.com, 2022).

❖ The Cremation Process: Step-by-Step

Cremation is a means of reducing the corpse to its essential elements through the use of open flames, extreme heat, and evaporation. This takes place in a specially designed furnace known as a cremation chamber or retort. Many crematoria demand that the corpse be placed in a container, such as a cremation casket or a hard cardboard container.

Cremated remains can also be referred to as "ashes," but they are largely bone fragments. It is vital to remember that the deceased's cremated ashes are mixed in with the container's remains and any other incidental by-products of the combustion. Cremation produces between 3 to 9 pounds of ashes. The precise amount is determined by the size of the body and the crematory's technique (Funeralwise.com, 2022).

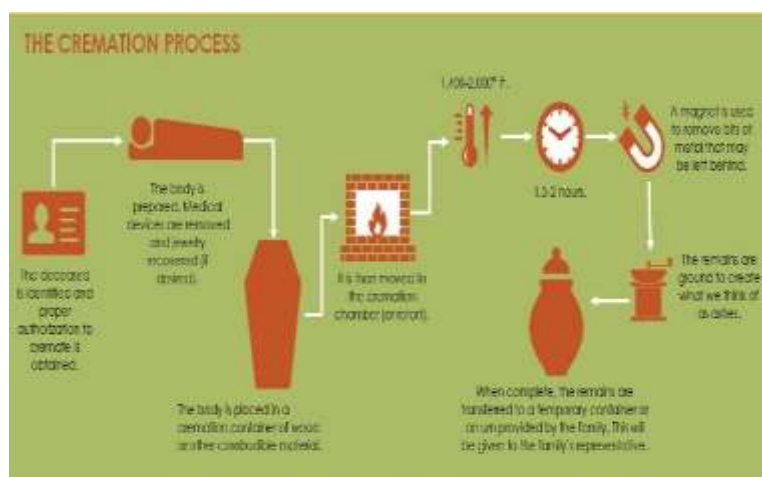
1. There are five major processes in the cremation procedure.
2. The deceased is recognised and the required consent is obtained.
3. The corpse is prepared and placed in the appropriate container.
4. The body's container is transferred to the "retort" or cremation chamber.
5. After cremation, the remaining metal is removed and the bones are pulverised.

The "ashes" can be moved to a temporary container or placed in an urn given by the family.

During the cremation procedure, the following events occur:

1. A signed death certificate is produced, and the cremation is approved by a medical examiner.

2. After the body has been washed and dressed, the crematorium will normally tag it as part of the identifying process.
3. Jewellery and medical devices are removed if the family wants them returned; otherwise, jewellery can be worn.
4. The body is carefully transferred to a flammable container, which is commonly constructed of wood.
5. The container is transferred to the retort, also known as the cremation chamber.
6. The body is incinerated for around two hours in temperatures reaching 2,000 degrees Fahrenheit. A small group of close friends and family members may be present throughout this phase of the process if desired and permitted by the crematorium.
7. Once the operation is complete, a magnet can be used to remove any remaining metals. These metals are recyclable.
8. The cremains, which contain bone fragments, are crushed up and deposited in a container weighing between three and seven pounds.
9. Individuals can usually pick up or have the ashes transported to them within a week or two.



8. COVID-19 horror in Hyderabad

During Covid-19 the government had made it clear that if a person dies in a government hospital, the Covid-19 patient's remains would be cremated for free. Cremation sites can charge no more than 8,000/- for those who die in private hospitals. Despite of this, people paid between 25,000/- to 70,000/- for each cremation. Of course, the money was paid in cash and there is no receipt. However, in the midst of the pandemic's second wave, many individuals in Hyderabad are being compelled to haggle and pay exorbitant fees to crematorium caretakers in order to have the funeral rites of their family members performed. A lady stated that, the mediator did not confirm where the body would be transferred for cremation, but noted that there are many requirements to be completed and that the body cannot be disposed of for less. Another individual was requested to pay 70,000/- for cremation after losing his father in the second wave of the pandemic at Government General and Chest Hospital. Furthermore, there was no space in the graveyard to burn the dead bodies, and there was a lack of wood. Many people were queuing to cremate their loved ones at the cemetery. Many residents in the vicinity of the graveyard complained that a lot of smoke was entering their homes and damaging their health.

9. Culture, Beliefs, and Environment

However, electric cremation is not much used in India because Hindus are unwilling to abandon traditional beliefs. Orthodox families think that an electric crematorium will not allow the soul to be liberated from the body causing it to mingle with other souls and preventing the concerned person from being reborn. People feel that ritual done in a traditional pyre, called as "kapal kriya," where a long bamboo stick is used to crack open the skull while burning to free the soul from its mortal remnants, which is not possible through electric cremation.

The typical funeral pyre requires 500-600 kilograms of fuel, 3 litres of kerosene (or desi ghee in some cases) and 300-400 cow dung cakes for the dead body. Only after 24 hours can mortal remains be taken.

Hindus believe that the soul of a deceased person must be totally separated from the body and the material world before being reincarnated. It is usual to see a cloud of black smoke covering the blue sky at most open crematoriums. According to some environmental lists, the rite of burning human remains with wood in the hope of releasing the soul is truly harmful to the environment.

According to recent reports, yearly around 50-60 million trees are used to cremate the bodies in India. Moreover, burning wood while cremating the bodies are releasing carbon dioxide gas into the air.

10. Advantages of using Electric Crematorium

- Electric cremation is less expensive compared to traditional funeral pyre.
- Mortal remains can be collected by relatives within few hours' of cremation.
- Wood is not used in electric cremation.
- Electric crematorium is the most sustainable cremator.
- Co₂ emission can be reduced by more than 80%.
- There are no gas emissions.
- It aids in the conservation of resources such as wood, kerosene and etc.

11. Failure of Electric Crematorium in Hyderabad

Electric cremations method has failed in Hyderabad due to religious reasons, technical snags, lack of awareness and due to lack of finances for proper maintenance of electric crematoriums.

12. India's first multi-faith crematorium in Hyderabad

Telangana government has opened multi-faith crematorium at Fatullaguda in Hyderabad district. It is named as Mukti Ghat and it is inaugurated by Kalvakuntla Taraka Rama Rao, Minister of Municipal Administration and Urban Development of Telangana.

Mukti ghat is over 6.5 acres to perform last rites to Muslims, Hindus and Christian faiths. Aparakarma Bhavan, a separate edifice, has been constructed for Hindus to perform rituals on the 10th day, while Muslim and Christian crematoriums have been built with traditional burial grounds. Each incinerator can hold 550 remains on 2.5 acres of land. It has an office, cold storage, a restroom block, a prayer hall, last journey cars, and parking space. It also has a 50 KLD Sewerage Treatment Plant and 140 KW Solar Plants on the grounds. The burial

facility has been equipped with modern CCTV cameras for live streaming of the last rites (Abbas, 2022).

A pet animal crematorium has also been inaugurated near the Mukti Ghat, with the goal of providing "dignified and respectful last rites" to pets.

13. Suggestions

- Government has to focus on establishing electric crematoriums at various graveyards in the city.
- Regular monitoring and maintenance activities must take place for electric crematoriums.
- Efforts should be made to keep the crematorium clean, efficient and running at excellent condition all the time.
- Awareness must be created among the people to use electric crematoriums.
- People must be made aware that all the ritual takes like for electric cremation same like traditional funeral pyre.
- Latest technology must be used for better functioning of electric crematoriums
- NGOs and Environmentalists must tell people the importance of protecting environment for which electric crematorium is one of the strategies to protect the environment.
- It is recommended to renovate crematoriums keeping in mind all the emotions one goes through this distressing time.
- Basic amenities such as clean washrooms, live streaming, 24*7 security, parking place, last journey vehicle must be made available.

14. Conclusion

In today's urban dwellings and shortage of burial spaces, electric crematoriums come as a boon to the present civilizations. Cremation of bodies is now a concern as availability of land is limited also the price of burial ground has increased immensely and adding to that these are increase of greenhouse gases as traditional burial systems consume lots of wood for burning of bodies including oils, etc. Electric crematoriums are really a practical alternative method in today's advanced societies, and also it is very economic because this reduces the account of buying a grave plot, grave preparations etc. Electric crematorium is convenient because many bodies per day can be made into ashes. Electric crematorium is environment friendly and this can also be enhanced in future, if the crematorium utilizes renewable energy resources as solar energy.

If the dead person is cremated on a traditional funeral pyre, it needs 500-600kgs of wood, 3 litres of kerosene, some desi ghee and 300-400 cow dung cakes to cremate. As a result, we are contributing in global warming and polluting the atmospheric air. These days' world is moving towards sustainable energy sources which are renewable and biodegradable in nature. With this study it is recommended to use electric crematorium for cremation of dead bodies to save resources and to protect the environment.

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