



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

DoorSparkle+ Homecare Assistant

K.Ramya * Assistant Professor Silver Oak College of Engineering and Technology

Computer Engineering Silver Oak University, Gujarat, India

ABSTRACT

In this paper to simplify the daily routine of South Indian women. The machine combines the functions of sweeping the door of a house, sprinkling water, and creating kolam / rangoli designs using a stencil. The purpose of this machine is to reduce the time and effort required by women in their daily morning and evening routine of designing rangoli. The machine seeks to streamline and automate this process, enabling women to perform their routine work with ease and convenience. The machine is innovative and unique, as it combines three different functions into one, making it a time-saving and efficient solution for women. The paper does not provide any technical details about the machine, but it highlights the benefits of the machine for women in South India. The machine is expected to make the daily routine of women easier and more convenient, allowing them to focus on other important tasks.

Keywords: Dashboard with switches, cow dung water, turmeric, wiper, sweeping rotating brush, rice powder, stencil.

DOORSPARKLE+

The DoorSparkle+ Homecare Assistant is a revolutionary machine that streamlines the process of creating kolam / rangoli, making it easier for South Indian women to perform their daily ritual work with ease and convenience. The traditional process of creating rangoli involves using dung

water, turmeric and rice powder, which can be time-consuming and potentially hazardous to health. The DoorSparkle+ is designed to simplify the daily routine of South Indian women, allowing them to focus on other important routine tasks.

The DoorSparkle+ is equipped with several functionalities that make it easy to use and operate. The sweeping function of the machine is powered by a powerful and efficient sweeping mechanism that consists of rotating brushes that effectively sweep dust, dirt, and debris from the doorstep and surrounding areas. The water sprinkling system integrated into the machine sprays a fine mist of dung water and turmeric water all over the area, making it suitable for creating rangoli designs. The stencil tray mechanism of the machine contains a collection of pre-designed rangoli / kolam stencils in various patterns and shapes, allowing users to create a wide range of designs effortlessly.

The DoorSparkle+ Homecare Assistant is a modern solution that simplifies the process of creating kolam/rangoli, making it easier for South Indian women to perform their daily ritual work with ease and convenience. The machine is designed to streamline and automate the process of creating rangoli, enabling women to perform their routine work with ease and convenience. By automating the process of creating rangoli, the DoorSparkle+ Homecare Assistant can save women a significant amount of time and effort, allowing them to focus on other important tasks.

The traditional process of creating rangoli involves using dung/ turmeric water and rice powder, which

can be time-consuming and potentially hazardous to health. The DoorSparkle+ Homecare Assistant is designed to simplify the daily routine of South Indian women, allowing them to focus on other important routine tasks. The machine is easy to use and operate, with a motor and switches that allow users to control the various functions of the machine. The machine is also environmentally friendly, reducing the use of water and eliminating the need for harmful viruses and bacteria by using the cow dung water with turmeric.

The DoorSparkle+ Homecare Assistant is a cost-effective and efficient solution that can be easily integrated into the lives of individuals seeking convenience and time optimization. The machine is designed to be easy to use and operate, with a motor and switches that allow users to control the various functions of the machine like spraying/ sprinkling the water on the floor, separate switches for swapping the floor, and also separate levers for the rice powder outlet and also to wiper the rice powder with wiper. The machine is also environmentally friendly, reducing the use of water and eliminating the need for harmful chemicals used in cleaning agents as well.

The DoorSparkle+ Homecare Assistant is a game-changer in the world of rangoli design. Its architecture and functionalities are designed to simplify the daily routine of South Indian women, allowing them to focus on other important tasks. With its ease of use, cost-effectiveness, and environmental benefits, DoorSparkle+ Homecare Assistant is a must-have for every household. It not only saves time and effort but also ensures that the traditional art form of kolam / rangoli is preserved for future generations.

In conclusion, the DoorSparkle+ Homecare Assistant is a modern solution that streamlines the process of creating kolam/rangoli, making it easier for South Indian women to perform their daily ritual work with ease and convenience. The machine is designed to automate the process of creating rangoli, enabling women to perform their routine work with ease and convenience. By automating the process of creating rangoli, the DoorSparkle+ Homecare Assistant can save women a significant amount of time and effort, allowing them to focus on other

important tasks. The machine is easy to use and operate, cost-effective, and environmentally friendly, making it a must-have for every household.

INTRODUCTION

Kolam, also known as Rangoli, is a traditional art form that originated in ancient Tamil Nadu and has since spread to other southern Indian states such as Karnataka, Telangana, Andhra Pradesh, and Kerala. The term 'kolam' means 'beauty' and is typically used in the southern parts of India. Kolams are drawn with geometric patterns of dots, lines, and curves, and they are regarded as a sort of painted prayer in South India.

In Gujarat, it is believed that when Lord Krishna settled down in Dwarka, his wife Rukmani started the rangoli pattern. Rangoli making is of two types - form-dominant type, which includes circles, cones, and lines, and ornamental rangoli, which includes images of birds, animals, trees, petals, flowers, and deities.

However, South Indian women face a problem in making morning kolam due to modern lifestyle and time constraints, especially due to early school/college/office schedules, which have made it difficult for them to dedicate sufficient time to create traditional rangoli. Currently, women spend anywhere from 20 minutes to 2 hours creating these intricate designs, and some even hire maids or pay the house owner for this work who stays in rented houses. As a result, they often resort to hiring maids or paying the house owner to perform this customary task, which adds financial burdens and compromises the cultural significance of the practice. Furthermore, in rented houses, women often pay the owner for performing these tasks. This situation not only adds financial burdens but also compromises the cultural significance and poses potential health risks associated with the traditional rangoli process. Modern lifestyle has led to several symptoms and causes that affect South Indian women, including hip pain, knee pain, getting ready for office/college/school, and sending their children to school as well as their husbands. These factors have made it difficult for women to dedicate sufficient

time to create traditional rangoli designs, which are an integral part of South Indian culture.

To address these challenges, the DoorSprakle+ Homecare Assistant was introduced, which is a revolutionary machine that combines the functions of sweeping the door, sprinkling water, and creating kolam designs using a stencil. The machine is designed to simplify the daily routine of South Indian women, allowing them to focus on other important tasks.



Fig 1. Hip pain



Fig 2. Knee pain

By automating the process of creating rangoli, the DoorSprakle+ Homecare Assistant can save women a significant amount of time and effort, allowing them to focus on other important tasks.

Finally kolam / rangoli is a traditional art form that is an integral part of South Indian culture. However, modern lifestyle and time constraints have made it difficult for women to dedicate sufficient time to create traditional rangoli designs. The DoorSprakle+

is a revolutionary machine that simplifies the daily routine of South Indian women, allowing them to focus on other important tasks. With its ease of use, cost-effectiveness, and environmental benefits, DoorSprakle+ Homecare Assistant is a must-have for every household. It not only saves time and effort but also ensures that the traditional art form of kolam / rangoli is preserved for future generations.

LITERATURE SURVEY

Components of cow dung serve as germicidal, nourishing, give body light, killer and absorber of bad odor, virya vardhak (increase intelligence), rasayukta (moisturizer) and supremely pure and sacred. It has the natural property of curing skin diseases and diminishing blood toxins. Cow dung has antiseptic, toxic and thermal properties. Due to its extensive uses in different fields such as livestock, natural production, conservation of the atmosphere and medicinal applications, cow dung has been called a "Gold Mine"[1]. Using cow dung to disinfect an area involves coating the floor with a paste of fresh cow dung. This practice is followed in many rural households throughout India [2]. Cow's urine can also be a source of harmful bacteria and infectious diseases, including leptospirosis. Srimad Bhagavatam 10.6.19-21 Thereafter, mother Yaśodā and Rohiṇī, along with the other elderly gopīs, waved about the switch of a cow to give full protection to the child Śrī Kṛṣṇa. The child was thoroughly washed with cow urine and then smeared with the dust raised by the movements of the cows. Srimad Bhagavatam 11.11.39 "To render service in my house (temple) like a sincere servant by sweeping and washing, plastering with cow dung the floor and decorating it with ornamental drawings figures[3]. Humans have been using cow dung as fertilizer for at least 8,000 years, and with good reason. Dung is essentially undigested, bacteria-packed plant matter residue. As such it contains valuable amounts of nitrogen, phosphate, potash and sulphur[4]. The stool of a cow is sacred. It possesses all antiseptic properties[5]. Native to Tamil Nadu, Karnataka, Telangana, Andhra Pradesh, Kerala and some parts of Goa, traditionally, the main purpose of Kolam was not decoration. Earlier, Kolams were

drawn in coarse rice flour so that the ants would not have to walk too far for a meal.

Along with ants, Kolam encouraged harmonious existence by setting an invitation to birds and other small creatures for a meal[6]. Kōlam is a daily women's ritualistic art form created by Tamil Hindu women throughout Tamil Nadu in southeastern India. Each day before dawn, during the Brahma muhurtam (believed to be the time when Brahma and all other deities descend to the earth) and sometimes before dusk, millions of women in the town, [7] villages and the cities of Tamil Nadu (and Pondicherry) draw kōlam on the thresholds and floors of houses, temples and businesses.

EXISTING SYSTEM

Kolam is a traditional art form that originates from South India, in which patterns are created on the floor using materials such as powdered limestone, red ochre, dry rice flour, colored sand, quartz powder, flower petals, and colored rocks. It is an everyday practice in many Hindu households, but making it is mostly reserved for festivals and other important celebrations as it is time-consuming. Special rangolis are usually made during Diwali or Tihar, Onam, Pongal, and other Hindu festivals by the South Indian people, and are most often made during the Tamil month of margazhi. The practice of making rangoli is considered a sacred tradition in South Indian culture, and it is usually done by girls or women, although men and boys create them as well. However, making rangoli often demands significant time and effort from women, ranging from 20 minutes to even a few hours.

The existing system of making rangoli involves using dung water and rice powder, which can be time-consuming and potentially hazardous to health. Recognizing the inefficient time utilization and potential health risks associated with the traditional method of making rangoli by women in South India, a machine was introduced that streamlines these daily tasks, saving valuable time and energy.

The DoorSprakle+ Homecare Assistant is a revolutionary machine that combines the functions of sweeping the door, sprinkling water, and creating kolam / rangoli designs using a stencil. The machine

is designed to simplify the daily routine of South Indian women who spend a considerable amount of time and effort in creating intricate designs every day. By automating the process of creating rangoli, the DoorSprakle+ Homecare Assistant can save women a significant amount of time and effort, allowing them to focus on other important tasks.

The DoorSprakle+ Homecare Assistant is a cost-effective and efficient solution that can be easily integrated into the lives of individuals seeking convenience and time optimization. The machine is easy to use and operate, with a motor and switches that allow users to control the various functions of the machine. The machine is also environmentally friendly, reducing the use of water and eliminating the need for harmful chemicals used in cleaning agents.

Overall, the existing system of making rangoli involves using dung water and rice powder, which can be time-consuming and potentially hazardous to health. The DoorSprakle+ Homecare Assistant is a revolutionary machine that simplifies the daily routine of South Indian women, allowing them to focus on other important tasks. With its ease of use, cost-effectiveness, and environmental benefits, DoorSprakle+ Homecare Assistant is a must-have for every household. It not only saves time and effort but also ensures that the traditional art form of kolam / rangoli is preserved for future generations.



Fig 3. Traditional kolam / rangoli

PROPOSED SYSTEM

The 3-in-1 Multi-functional DoorSprakle+ Homecare Assistant is a proposed system that has the potential to provide several benefits to South Indian households. The machine is designed to automate the sweeping, water sprinkling, and kolam creation processes, freeing up valuable time for

individuals to focus on other important tasks or leisure activities.

One of the most significant benefits of the DoorSprakle+ Homecare Assistant is time savings. The machine can perform multiple tasks simultaneously, reducing the amount of time and effort required to complete routine household chores. This is particularly important for South Indian women who spend a considerable amount of time and effort in creating intricate rangoli designs every day. By automating this process, the DoorSprakle+ Homecare Assistant can save women a significant amount of time and effort, allowing them to focus on other important tasks.

In addition to time savings, the DoorSprakle+ Homecare Assistant can also help households save money. By eliminating the need to hire a maid or pay additional fees to the house owner, the machine can provide a cost-effective solution to routine household chores. This is particularly important in rural areas where access to home health services may be limited. By providing a cost-effective and easily accessible solution, the DoorSprakle+ Homecare Assistant can help bridge the rural-urban healthcare divide and extend access to primary care. The proposed system is designed to be cost-effective and efficient. The goal was to create a solution that could be easily integrated into the lives of individuals seeking convenience and time optimization. The machine is easy to use and operate, with a motor and switches that allow users to control the various functions of the machine. The machine is also environmentally friendly, reducing the use of water and eliminating the need for harmful chemicals used in cleaning agents.

Overall, the 3-in-1 Multi-functional DoorSprakle+ Homecare Assistant has the potential to improve the quality of life for South Indian households by providing a convenient and affordable solution to routine household chores. By saving time, money, and effort, the machine can help individuals focus on other important tasks and activities, improving their overall well-being. The proposed system is a cost-effective and efficient solution that can be easily integrated into the lives of individuals seeking convenience and time optimization



Fig 4. Doorsprakle+ Homecare Assistant overall view

METHODOLOGY

The DoorSprakle+ is a revolutionary machine that simplifies the daily routine of South Indian women who spend a considerable amount of time and effort in creating intricate rangoli designs every day. The machine is equipped with three main functionalities - sweeping, water sprinkling, and kolam / rangoli creation.

The sweeping function of the DoorSprakle+ Homecare Assistant is powered by a powerful and efficient sweeping mechanism. It consists of rotating brushes that effectively sweep dust, dirt, and debris from the doorstep and surrounding areas. At the front of the machine, there are rotating brushes that are designed to effectively sweep the area in front of the house, removing dust and debris from the floor. The bristles are designed to be tough enough to remove even the most stubborn dirt and debris, ensuring that the area is clean and free of any debris before the kolam / rangoli design is created.

Integrated into the DoorSprakle+ Homecare Assistant is a water sprinkling system that sprays a fine mist of dung water all over the area. This feature helps dampen the surface, making it suitable for creating rangoli designs. Above the sweeping mechanism, there is a water reservoir with a pump system. The pump distributes dung water through small nozzles or spray jets strategically placed on the

machine's body. When activated, the machine sprays a fine mist of water in a controlled manner to dampen the floor surface, facilitating the adherence of the rangoli materials. The dung water is a traditional ingredient used in rangoli making, and it is believed to have a purifying effect.

The highlight of the DoorSparkle+ Homecare Assistant is its stencil tray mechanism. It contains a collection of pre-designed rangoli stencils in various patterns and shapes. Users can select their desired stencil and place it in the tray. Towards the back of the machine, there is a rice powder traveling pipe that sends the powder to the bottom stencil area where the wiper is built to wipe the powder front and back, creating the kolam / rangoli design in a few seconds. The rice powder is evenly distributed, ensuring that the kolam design is uniform and consistent. The wiper is designed to be gentle enough to avoid damaging the stencil while still being effective in wiping away excess powder.

The DoorSparkle+ Homecare Assistant is designed to be easy to use and operate. The machine is controlled by a motor and switches, making it easy for users to control the various functions of the machine. The machine is also designed to be cost-effective and environmentally friendly. It reduces the use of water and eliminates the need for harmful chemicals used in cleaning agents.

Therefore, the methodology behind the DoorSparkle+ Homecare Assistant is designed to simplify the daily routine of South Indian women, allowing them to focus on other important tasks. The sweeping function, water sprinkling system, and kolam / rangoli creation mechanism work together seamlessly to create a machine that is efficient, effective, and easy to use. With its ease of use, cost-effectiveness, and environmental benefits, DoorSparkle+ Homecare Assistant is a must-have for every household. It not only saves time and effort but also ensures that the traditional art form of kolam / Rangoli is preserved for future generations.

ARCHITECTURE

DoorSparkle+ Homecare Assistant is a revolutionary machine that combines the functions of sweeping the door, sprinkling water, and creating kolam / rangoli designs using a stencil. The

architecture and functionalities of the device are designed to simplify the daily routine of South Indian women who spend a considerable amount of time and effort in creating intricate designs every day.

The device is divided into two layers - the bottom layer and the top layer.

The bottom layer is divided into three horizontal segments. The first segment is the tray that can hold the stencil. This ensures that the stencil is held securely in place while the kolam / rangoli design is being created. The second segment is an open space where there will be an outlet for rice powder, and the wiper can wipe the rice powder to make the rangoli. This ensures that the rice powder is evenly distributed and ready for the kolam / rangoli design to be created. The third segment is segmented to hold the number of stencils. This ensures that users can create a wide range of designs effortlessly.

The top layer is divided into two vertical segments. The first segment is the water container with a stainless - steel filter that will help to segregate the dust practical from the two - cotton cloth wrapped balls, one of which has cow dung wrapped with the cloth and the other contains the turmeric stick/powder with the cloth. This ensures that the water is clean and free of any impurities that could affect the quality of the kolam / rangoli design. The second segment is the rice powder container. This ensures that the machine is always ready for use and that users do not have to worry about running out of powder.

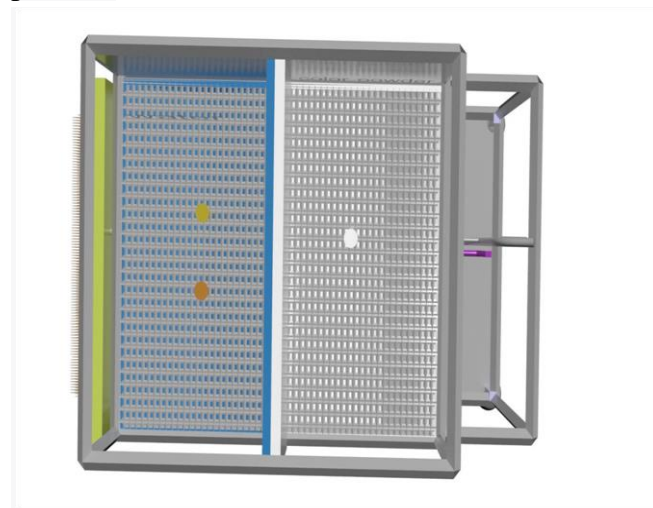


Fig 5. Top layer

The controller handles everything through the motor and switches. This ensures that the machine is easy to use and operate. The motor ensures that the machine runs smoothly and efficiently, while the switches allow users to control the various functions of the machine. DoortSparkle+ Homecare Assistant is a game-changer in the world of rangoli design.



Fig 6. Controller

Its architecture and functionalities are designed to simplify the daily routine of South Indian women, allowing them to focus on other important tasks. With its ease of use, cost-effectiveness, and environmental benefits, DoortSparkle+ is a must-have for every household. It not only saves time and effort but also ensures that the traditional art form of kolam / rangoli is preserved for future generations.

FUNCTIONALITY

DoortSparkle+ Homecare Assistant is a revolutionary machine that combines the functions of sweeping the door, sprinkling water, and creating kolam designs using a stencil. This machine is designed to simplify the daily routine of South Indian women who spend a considerable amount of time and effort in creating intricate designs every day.

The machine has several functionalities that make it easy to use and operate. When the water switch is turned on, water travels from the water container to the front side of the container and sprinkles the water on the floor. This ensures that the floor is damp and

ready for the kolam / rangoli design to be created. At the same time, the user can also sweep the area by switching on the sweeping switches. This ensures that the area is clean and free of any debris before the kolam design is created.

Alternatively, the user can choose the stencil design and manually place it in the tray according to their wish. This allows users to create a wide range of designs effortlessly. The machine comes with a stencil that can be easily attached to the machine, allowing users to create a wide range of designs effortlessly.

On the other hand, when the user lifts up the lever/switch, the powder will travel from the rice powder container to the bottom layer of the stencil tray. This ensures that the powder is evenly distributed and ready for the kolam design to be created. When the wiper switch is turned on, it will wipe the powder from the front and back. This ensures that the design is clean and free of any excess powder.



Fig 7. Internal functionality side view



Fig 8. Internal functionality isometric side view

The extra leftover powder can be taken out with the stencil and refilled in the rice powder container. This ensures that the machine is always ready for use and that users do not have to worry about running out of powder.

Using DoorSparkle+ Homecare Assistant, women can do the routine traditional ritual work in less than 5 minutes without any health issues and quickly. Rangoli holds a significant role in the everyday life of a Hindu household, especially historically each morning before sunrise, the front entrance of the house, or wherever the kolam may be drawn, is swept clean, sprinkled with water, and the kolam / rangoli are generally drawn while the surface is still damp so the design will hold better.

The DoorSparkle+ Homecare Assistant Rangoli Machine is a modern solution that simplifies the process of creating kolam/rangoli, making it easier for people to enjoy these beautiful art forms while saving time and effort. By saving time, energy, and money, users can still enjoy the beauty of traditional kolam throughout their life with DoorSparkle+ Homecare Assistant, which brings the goddess into the house and fills the house with positive vibrations. The kolam / rangoli is also drawn to welcome Lakshmi, the Goddess of Prosperity, into the home, and drive away the evil spirits.

Finally, DoorSparkle+ Homecare Assistant is a game-changer in the world of rangoli design. It is an innovative solution that can simplify the daily routine of South Indian women, allowing them to focus on other important tasks. With its ease of use,

cost-effectiveness, and environmental benefits, DoorSparkle+ Homecare Assistant is a must-have for every household. It not only saves time and effort but also ensures that the traditional art form of kolam / rangoli is preserved for future generations.

CONCLUSION

The DoorSparkle+ Homecare Assistant Rangoli Machine is a modern solution that simplifies the process of creating kolam / rangoli, making it easier for people to enjoy these beautiful art forms while saving time and effort. Using this machine, women can do the routine traditional ritual work in less than 5 minutes without any health issues and quickly. Rangoli holds a significant role in the everyday life of a Hindu household, especially historically each morning before sunrise, the front entrance of the house, or wherever the kolam / rangoli may be drawn, is swept clean, sprinkled with water, and the kolam / rangoli are generally drawn while the surface is still damp so the design will hold better.

The DoorSparkle+ Homecare Assistant Rangoli Machine is designed to streamline and automate the process of creating kolam / rangoli, enabling women to perform their routine work with ease and convenience. The machine is equipped with several functionalities that make it easy to use and operate. The sweeping function of the DoorSparkle+ Homecare Assistant is powered by a powerful and efficient sweeping mechanism that consists of rotating brushes that effectively sweep dust, dirt, and debris from the doorstep and surrounding areas. The water sprinkling system integrated into the machine sprays a fine mist of dung water all over the area, making it suitable for creating rangoli designs. The stencil tray mechanism of the machine contains a collection of pre-designed rangoli stencils in various patterns and shapes, allowing users to create a wide range of designs effortlessly.

By saving time, energy, and money, users can still enjoy the beauty of traditional kolam / rangoli throughout their life with DoorSprakle+ Homecare Assistant. The machine brings the goddess into the house and fills the house with positive vibrations. The kolam / rangoli is also drawn to welcome Lakshmi, the Goddess of Prosperity, into the home, and drive away the evil spirits. The DoorSparkle+

Homecare Assistant Rangoli Machine is a cost-effective and efficient solution that can be easily integrated into the lives of individuals seeking convenience and time optimization. The machine is easy to use and operate, with a motor and switches that allow users to control the various functions of the machine. The machine is also environmentally friendly, reducing the use of water and eliminating the need for harmful chemicals used in cleaning agents.

The DoorSparkle+ Homecare Assistant Rangoli Machine is a game-changer in the world of rangoli design. Its architecture and functionalities are designed to simplify the daily routine of South Indian women, allowing them to focus on other important tasks. With its ease of use, cost-effectiveness, and environmental benefits, DoorSparkle+ Homecare Assistant is a must-have for every household. It not only saves time and effort but also ensures that the traditional art form of kolam / rangoli is preserved for future generations.

RESULT

The DoorSparkle+ Homecare Assistant Rangoli Machine is a modern solution that simplifies the process of creating kolam/rangoli, making it easier for people to enjoy these beautiful art forms while saving time and effort. The machine is designed to streamline and automate the process of creating kolam / rangoli, enabling women to perform their routine work with ease and convenience. By saving time, energy, and money, users can still enjoy the beauty of traditional kolam / rangoli throughout their life with DoorSprakle+ Homecare Assistant. The machine brings the goddess into the house and fills the house with positive vibrations, making it a must-have for every household.

Reference paper

Kumar, Gaurav et al. 2020., "Beneficial Use of Vedic Indian Cow Dung." *International Journal of Advances in Agricultural Science and Technology* 7, no. 10: 6-10. https://www.researchgate.net/publication/350442939_Beneficial_Use_of_Vedic_Indian_Cow_Dung.

Bamane, Amol. 2023. "Govardhan Puja: How Cow Dung Is Beneficial for Your Health." *Lybrate*. <https://www.lybrate.com/topic/govardhan-puja-how-cow-dung-is-beneficial-for-your-health/d9cf20684de30d46f04ba89383610d7f>.

Razvi, Sulaiman.2014., "Importance of Cow Dung and Urine in Hinduism" and "Cow Dung as a Beauty Cream." *VedKaBhed.Com, Truth About Hinduism*. https://vedkabhed.com/index.php/2014/01/05/importance-of-cow-dung-and-urine-in-hinduism/#Definition_of_Panchagavya.

Alamy., 2018. "The Delights of Dung: 11 Things You Never Knew About Cowpats." *Country Life*, February 10, 2018. <https://www.countrylife.co.uk/nature/11-things-you-never-new-about-cowpats-173541#:~:text=Humans%20have%20been%20using%20cow,%2C%20phosphate%2C%20potash%20and%20sulphur>.

Das, Krishna. 2021. "The Cow and Cowdung: Significance in Hinduism." Freelance Blogger. June 2, 2021. <https://www.linkedin.com/pulse/cow-cowdung-significance-hinduism-krishna-das#:~:text=The%20stool%20of%20a%20cow,It%20will%20detoxify%20even%20wounds>.

Timesofindia. 2017. "Rangoli Designs and Their Importance." April 13, 2017, 15:22 IST. http://timesofindia.indiatimes.com/articleshow/58161791.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst.

Kumari, Anni. 2018. "Floor Art of Tamil Nadu" and "Significance of Kolam in Tamil Culture." July 3, 2018. <https://www.sahapedia.org/significance-of-kolam-tamil-culture>.