

## PROJECT COMPLETION CERTIFICATE

(For Aspire Scholarship 2023-24)

This is to certify that Kuan Arya Dose, PhD Scholar, Department of Sanskrit Vedanta, Govt Sanskrit College, Trivandrum has successfully completed her Aspire (Research Award) Scholarship Project/ internship entitled "Hiravayadha in Chaitanya's Pancharatna" within the stipulated period (from 21.03.2023 F.M. to 19.07.2023 A.M.) under the guidance of Dr. T. G. Sankaran, Associate Professor, Department of Sanskrit Vedanta SSCLS Kalady.

Kalady

19.07.2023



  
Professor and Head

Department of Sanskrit Vedanta  
Sree Sankaracharya University of Sanskrit  
Kalady

  
Dr. T. G. Sankaran  
Guide of Research Project / Internship

  
[NOO, institution]

- Enclosed:  
1. Project report  
2. Attestation certificate from the institution

Sl. No.	Project Title	Project Description	Supervisor Name	Date
1				
2				
3				

Sl. No.	Project Title	Project Description	Supervisor Name	Date
1	Hiravayadha in Chaitanya's Pancharatna	Study of Hiravayadha in Chaitanya's Pancharatna	Dr. T. G. Sankaran	19.07.2023
2				
3				
4				
5				
6				
7				
8				
9				
10				

## PROJECT COMPLETION CERTIFICATE

(For Aspire Scholarship 2023-24)

This is to certify that Kum. Arya Bose, Ph.D Scholar, Department of Sanskrit Vedanta, Govt.Sanskrit College, Tripunithura has successfully completed her Aspire (Research Award) Scholarship Project/ internship entitled "Bhūmavidya in Chandogyopanishad" within the stipulated period (from 21.03.2023 F.N. to 19.07.2023 A.N.) under the guidance of Dr. T. G. Sreekumar, Associate Professor, Department of Sanskrit Vedanta SSUS Kalady.

Kalady

19.07.2023



Professor and Head

Department of Sanskrit Vedanta

Sree Sankaracharya University of Sanskrit  
Kalady

Dr. T.G. SREEKUMAR

Associate Professor  
Department of Vedanta  
Sree Sankaracharya University of Sanskrit  
Kalady, Kerala - 685582

(HOD, Institution )

20/7/2023

- Enc:-  
1. Project report  
2. Attendance certificate from the institution

Category	Sub-Category	Description	Notes	Comments
Category A	Sub-Category A.1	Description A.1.1	Note A.1.1	Comment A.1.1
Category B	Sub-Category B.2	Description B.2.2	Note B.2.2	Comment B.2.2
Category C	Sub-Category C.3	Description C.3.3	Note C.3.3	Comment C.3.3
Category D	Sub-Category D.4	Description D.4.4	Note D.4.4	Comment D.4.4
Category E	Sub-Category E.5	Description E.5.5	Note E.5.5	Comment E.5.5
Category F	Sub-Category F.6	Description F.6.6	Note F.6.6	Comment F.6.6
Category G	Sub-Category G.7	Description G.7.7	Note G.7.7	Comment G.7.7
Category H	Sub-Category H.8	Description H.8.8	Note H.8.8	Comment H.8.8
Category I	Sub-Category I.9	Description I.9.9	Note I.9.9	Comment I.9.9
Category J	Sub-Category J.10	Description J.10.10	Note J.10.10	Comment J.10.10

—  
—  
—

10 of 10

Category	Sub-Category	Description	Notes	Actions
Category A	Sub-Category A1	Detail A1.1	Notes A1.1	Action A1.1
Category A	Sub-Category A1	Detail A1.2	Notes A1.2	Action A1.2
Category A	Sub-Category A2	Detail A2.1	Notes A2.1	Action A2.1
Category B	Sub-Category B1	Detail B1.1	Notes B1.1	Action B1.1
Category B	Sub-Category B1	Detail B1.2	Notes B1.2	Action B1.2
Category B	Sub-Category B2	Detail B2.1	Notes B2.1	Action B2.1
Category C	Sub-Category C1	Detail C1.1	Notes C1.1	Action C1.1
Category C	Sub-Category C1	Detail C1.2	Notes C1.2	Action C1.2
Category C	Sub-Category C2	Detail C2.1	Notes C2.1	Action C2.1
Category D	Sub-Category D1	Detail D1.1	Notes D1.1	Action D1.1
Category D	Sub-Category D1	Detail D1.2	Notes D1.2	Action D1.2
Category D	Sub-Category D2	Detail D2.1	Notes D2.1	Action D2.1
Category E	Sub-Category E1	Detail E1.1	Notes E1.1	Action E1.1
Category E	Sub-Category E1	Detail E1.2	Notes E1.2	Action E1.2
Category E	Sub-Category E2	Detail E2.1	Notes E2.1	Action E2.1
Category F	Sub-Category F1	Detail F1.1	Notes F1.1	Action F1.1
Category F	Sub-Category F1	Detail F1.2	Notes F1.2	Action F1.2
Category F	Sub-Category F2	Detail F2.1	Notes F2.1	Action F2.1
Category G	Sub-Category G1	Detail G1.1	Notes G1.1	Action G1.1
Category G	Sub-Category G1	Detail G1.2	Notes G1.2	Action G1.2
Category G	Sub-Category G2	Detail G2.1	Notes G2.1	Action G2.1
Category H	Sub-Category H1	Detail H1.1	Notes H1.1	Action H1.1
Category H	Sub-Category H1	Detail H1.2	Notes H1.2	Action H1.2
Category H	Sub-Category H2	Detail H2.1	Notes H2.1	Action H2.1
Category I	Sub-Category I1	Detail I1.1	Notes I1.1	Action I1.1
Category I	Sub-Category I1	Detail I1.2	Notes I1.2	Action I1.2
Category I	Sub-Category I2	Detail I2.1	Notes I2.1	Action I2.1
Category J	Sub-Category J1	Detail J1.1	Notes J1.1	Action J1.1
Category J	Sub-Category J1	Detail J1.2	Notes J1.2	Action J1.2
Category J	Sub-Category J2	Detail J2.1	Notes J2.1	Action J2.1
Category K	Sub-Category K1	Detail K1.1	Notes K1.1	Action K1.1
Category K	Sub-Category K1	Detail K1.2	Notes K1.2	Action K1.2
Category K	Sub-Category K2	Detail K2.1	Notes K2.1	Action K2.1
Category L	Sub-Category L1	Detail L1.1	Notes L1.1	Action L1.1
Category L	Sub-Category L1	Detail L1.2	Notes L1.2	Action L1.2
Category L	Sub-Category L2	Detail L2.1	Notes L2.1	Action L2.1
Category M	Sub-Category M1	Detail M1.1	Notes M1.1	Action M1.1
Category M	Sub-Category M1	Detail M1.2	Notes M1.2	Action M1.2
Category M	Sub-Category M2	Detail M2.1	Notes M2.1	Action M2.1
Category N	Sub-Category N1	Detail N1.1	Notes N1.1	Action N1.1
Category N	Sub-Category N1	Detail N1.2	Notes N1.2	Action N1.2
Category N	Sub-Category N2	Detail N2.1	Notes N2.1	Action N2.1
Category O	Sub-Category O1	Detail O1.1	Notes O1.1	Action O1.1
Category O	Sub-Category O1	Detail O1.2	Notes O1.2	Action O1.2
Category O	Sub-Category O2	Detail O2.1	Notes O2.1	Action O2.1
Category P	Sub-Category P1	Detail P1.1	Notes P1.1	Action P1.1
Category P	Sub-Category P1	Detail P1.2	Notes P1.2	Action P1.2
Category P	Sub-Category P2	Detail P2.1	Notes P2.1	Action P2.1
Category Q	Sub-Category Q1	Detail Q1.1	Notes Q1.1	Action Q1.1
Category Q	Sub-Category Q1	Detail Q1.2	Notes Q1.2	Action Q1.2
Category Q	Sub-Category Q2	Detail Q2.1	Notes Q2.1	Action Q2.1
Category R	Sub-Category R1	Detail R1.1	Notes R1.1	Action R1.1
Category R	Sub-Category R1	Detail R1.2	Notes R1.2	Action R1.2
Category R	Sub-Category R2	Detail R2.1	Notes R2.1	Action R2.1
Category S	Sub-Category S1	Detail S1.1	Notes S1.1	Action S1.1
Category S	Sub-Category S1	Detail S1.2	Notes S1.2	Action S1.2
Category S	Sub-Category S2	Detail S2.1	Notes S2.1	Action S2.1
Category T	Sub-Category T1	Detail T1.1	Notes T1.1	Action T1.1
Category T	Sub-Category T1	Detail T1.2	Notes T1.2	Action T1.2
Category T	Sub-Category T2	Detail T2.1	Notes T2.1	Action T2.1
Category U	Sub-Category U1	Detail U1.1	Notes U1.1	Action U1.1
Category U	Sub-Category U1	Detail U1.2	Notes U1.2	Action U1.2
Category U	Sub-Category U2	Detail U2.1	Notes U2.1	Action U2.1
Category V	Sub-Category V1	Detail V1.1	Notes V1.1	Action V1.1
Category V	Sub-Category V1	Detail V1.2	Notes V1.2	Action V1.2
Category V	Sub-Category V2	Detail V2.1	Notes V2.1	Action V2.1
Category W	Sub-Category W1	Detail W1.1	Notes W1.1	Action W1.1
Category W	Sub-Category W1	Detail W1.2	Notes W1.2	Action W1.2
Category W	Sub-Category W2	Detail W2.1	Notes W2.1	Action W2.1
Category X	Sub-Category X1	Detail X1.1	Notes X1.1	Action X1.1
Category X	Sub-Category X1	Detail X1.2	Notes X1.2	Action X1.2
Category X	Sub-Category X2	Detail X2.1	Notes X2.1	Action X2.1
Category Y	Sub-Category Y1	Detail Y1.1	Notes Y1.1	Action Y1.1
Category Y	Sub-Category Y1	Detail Y1.2	Notes Y1.2	Action Y1.2
Category Y	Sub-Category Y2	Detail Y2.1	Notes Y2.1	Action Y2.1
Category Z	Sub-Category Z1	Detail Z1.1	Notes Z1.1	Action Z1.1
Category Z	Sub-Category Z1	Detail Z1.2	Notes Z1.2	Action Z1.2
Category Z	Sub-Category Z2	Detail Z2.1	Notes Z2.1	Action Z2.1

Digitized by srujanika@gmail.com

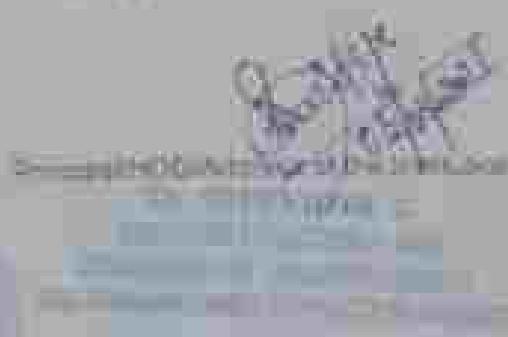
100-00000


## Scoring Results

Test = Paired

As you can see from the table, the test statistic (Kruskal-Wallis) is 10.3664. The degrees of freedom are 2 and the p-value is 0.0013. This shows that there is a significant difference between the three groups.

Test = Cramér's V



Appendix H

PROJECT COMPLETION CERTIFICATE  
(GRADUATE SCHOLARSHIP - 2020-21)

This is to certify that Sri/Dr. S. MUTHAIS, Ph.D., member of GOVT. DURGAPUR COLLEGE,  
THIRUVANMALA, ECRUPTALAM, affiliated to MAHATMA GANDHI UNIVERSITY

KOTTAYAM has successfully completed his/her Higher Studies Scholarship Project/Internship  
entitled: **EVAKKATHA OF H. THIRALOGOMMON, NMR - P-45167**

in **the UGPA perspective**, within the stipulated months.

In accordance with the guidelines of Prof./Dr. G. S. R. IYER, Vice-Chancellor  
MANIKSANKARA ASAIKA UNIVERSITY OF KANNUR) institution



Enc: 23 Project Report

2) Assistance certificate from parent institution or relevant organization

**CONCEPTS OF ARCHITECTURE IN ARTHASAstra**  
**DISSERTATION SUBMISSION FOR ASPIRE SCHOLARSHIP**  
**2023-24**



Submitted by:  
**NANDAHARIDA P M**  
Reg ID: R20432021417  
2nd MA Vyakarna  
Govt Sanskrit College, Tirupur

Under the guidance of  
**Dr. VINITHA E.**  
Assistant professor  
Department of Sanskrit  
Christ College (autonomous)  
Irugulakudi, Tirupur.

  
**Dr. Vinitha E**  
Assistant Professor  
Department of Sanskrit  
Christ College (autonomous)  
Irugulakudi - 641125



## ABSTRACT

Architecture is the art of planning, designing and constructing structures or buildings. It deals with both engineering and art. So it is a combination of creative and technical skills. Arthashastra is an ancient Indian handbook written by Kautilya which consists of various branches of knowledge related to ruling and the welfare of people. It consists of topics including military, politics, business management and many other topics that are related to ruling a country or kingdom. It was a handbook to the Mauryan emperor, Chandragupta Maurya, who is a skillful leader and using this treatise created by Chanakya. The study of Arthashastra not only enhances our knowledge in history but it can create a major impact on the development of our country. There are many techniques used by the ancient people in building religious places, palaces, houses and many other structures. Ellora caves temple, Konark sun temple, and many temples in Hampi are all such examples. It is a wonder that these temples were built without any modern technologies including transportation. Arthashastra is a similar wonder which can be included in the education curriculum.

## **ACKNOWLEDGEMENTS**

I would like to express my special thanks to Dr. Vinatha G. Aas, Prof. Department of Sanskrit, Christ College, Bengaluru, for the guidance in carrying out the project work.

I would also like to extend my sincere thanks to the Principal, Christ college, Bengaluru for providing me the opportunity to do this project.

I sincerely thank Dr. Shobha K. D, the Principal, Govt. Samarth collage, Tripurahalli for providing me with this great opportunity to do the project.

I also thank all the teachers in the Department of Vyakarna, Govt. Samarth collage, Tripurahalli for supporting me.

## INTRODUCTION

India is a country rich in knowledge and culture. The country India consists of a vast number of treatises which consist of ancient knowledge which are written by great sages. Most of these works have been lost due to invasions and during the invasion of Britishers and others. Ayurvedic, methods of curing disease or Ayurveda, geology, architecture, chemistry or Rasashatra, and all other arts of knowledge have existed few thousand of years ago. Great civilisations like the Indus Valley Civilization also took place in Northern regions of India which also contributed to this treasure house of knowledge. Most of the scientific technologies used here were sustainable, hence, it focused on humans as well as all other living and non-living things in nature. Thus, these technologies would cause a great difference when imported to modern technologies. The Veda, which is a granary which does not have an author, is considered to be old Vedic math common of scientific and mathematical concepts, which are considered to be discovered by new mathematicians before a few decades.

Asthashastra is the famous work by Chanakya, who is also known as Kautilya and Vishnugupta. He was the chief adviser in the Mauryan Empire. In around 323 BC, he assisted Chandragupta Maurya in establishing the Mauryan Empire. Asthashastra was a handbook for this and it covers topics like military, statecraft, economy, administration, etc. So, it primarily focuses on how an efficient economy is managed in society. Apart from these, it also contains of topics like art mechanics, metallurgy, mining, agriculture and irrigation and environment. Without using any kind of modern equipment or devices, the quality of germs, soil rainfall was being measured.

Architecture reflects the development, wealth and skills of a kingdom. It plays a huge role in the transformation of the environment. It also illustrates the geographical features like soil and especially the materials used in construction of structures vary depending on the availability. Bricks, stones, wood, etc. will vary depending on the place and the skills that are followed by generations also vary from place to place. So, Arastshasra also focuses on this. Buildings, roads, protective structures, construction materials, architecture, etc. come under this.

The term "Vastu-Vidya" is used for the most comprehensive technology of civil engineering and architecture. Vastu-Vidya means the science of vastu. In Sanskrit, Vastu means, building site or building itself. So, it is the science of architecture. It includes building principles (principles). In Sanskrit, vastu-vidya is the science dealing with building temples, palaces, houses, etc. Hydrology, irrigation, sanitation, etc. comes under civil engineering. Such topics are also covered in Arastshasra. Apart from Arastshasra, there are other texts including Vaisesika that deals with engineering and architecture.

# **CONCEPTS OF ARCHITECTURE IN ARTHASASTRA**

## TOWN AND COUNTRY PLANNING

Town planning in the context of Indus civilization exhibits the organized mind in the embryonic stage of civilization. It is very well demonstrated in *Arikamedu*, the way the layout of a town has been planned. The entire administrative activity. The entire activity was directed to the king to provide opportunities for business, trade, learning, etc. very much importance is given to form a city. It is said that, "cities are product of man", that the city reflects the attitude of culture and epoch to the fundamental facts of man existence". But,

"it represents the maximum possibility of harmonizing the human environment and of nurturing the human heritage, it gives a human shape to the firm, and it synthesizes in permanent collective forms in the world". - Lewis Mumford, the Culture of cities.

The concept of such planning is given below.

1. The settlements might be enclosed or it can be open settlements.
2. Settlements must be established in groups of eight hundred, four hundred, two hundred and ten villages. Harappan towns must be located within each of such clusters. The village should consist of hundred to five hundred Saka families of agriculturists.
3. Such families should be brought from outside the country or from populated areas within the country.
4. The settlements should have boundaries like rivers, mountains, forests, etc.
5. The boundaries should be well planned by identified communities for the society with good arable incomes, and should consist of towns for urbanites.
6. The landed people and the ones in different professions are to be given land.

The site for a town should be selected on the basis of accommodation of people belonging to all varnas. The area of divided varna occurs by 4 to 9 km<sup>2</sup> with highways. Three in each direction, from east to west and north to south. The twelve temples exist at the boundaries with gates, and arrangements for drainage and sewage passage. The width of other types of roads like for irrigation works, for elephants and carts paths, etc are indicated according to the purpose of area.

The capital of the royal palace should be in the centre, so that movements of people and goods and other human activity accessible. Different sectors have been allotted depending on the professions like traders, weavers, potters, bakers, hospitalites, workers, etc. In the northeast of the main urban complex, the port, place for sacrifice and the residence of state should be created. The elephant stable and kitchen and the trades of florists, potters and other industries should be situated in the northeast. Different varna were also given different areas of residence. In ancient India professions were divided according to different species and thus does not find compatibility with the caste system followed in the later.

We would expect that the cores according to arthashastra are square in shape with other parts just roads which divide it into smaller blocks. There is a central square with the palace on the north side.

## STRUCTURE OF CIVIL ENGINEERING

The arrangement of buildings, streets, planned everywhere, etc. are based on sense of uniformity. It starts from the selection of suitable sites within a town suitable for different classes of people. In Arthashastra, it is recommended by the system to have a boundary fixed with pillars on

four corners which is connected using four wires. If there are neighbours, then the boundary should be about 30 ft away to avoid resonance. Similarly, walls, places for pen and carts should also be constructed in a place with mutual understanding.

Further, it also has specifications on how to build a floor and slab. Firstly, the soil must be converted to make it dry. The sides and the bottom must be paved using slabs of large stones which is done to insulate the underground soil moisture. After that, a chamber must be made using timber and the upper floor must be raised. It is such that rules and wise enough details about construction. Soil parameters were well known for providing appropriate foundation to multi-storyed buildings. The foundation relates to the stability of super structure as influenced by the foundation. This subject belongs to "soil mechanics" - branch of civil engineering. It has been described in para 252. Which is similar to present day practices in civil engineering.

"Having caused to be a floor covered when free from water and dampness, and having paved the walls on both sides and bottom with big slab stones, should cause an underground cellar to be made with a frame work of long timber, level with the ground, with these floors, with various arrangements, with ground and upper floors having well made surfaces, with a single door, with a staircase provided with a mechanism."

These are instructions on soil mass drying for moisture free and use of strong stone slabs for the bottom of excavation.

As a protective measure, ditch or moat at the foot ground floor. Dimensions of moats and construction procedures are given importance.

"He should cause these spaces to be dug around, at a distance of one yards from each other, four yards wide and two double broad, three-quarters or half of the breadth deep, one-third (of the surface breadth) at the bottom or square with the bottom, paved with stones or with the sides (only) built of stones or bricks, reaching down to (natural springs of) water or filled with water coming from elsewhere, with (arrangements for) draining excess water, and stocked with fishes and crocodiles."

Where the slope of embankment is square, then the slope is vertical or 90 degrees and if the depth varies from half of the surface width or three-fourth of the same, the slope angles vary from 56 to 66 degrees.

Ramparts were also constructed for protection. The height of ramparts must be 36 ft. and 24 ft. away from the edge of the road. The foundation must be strong enough so that it should not spread out. The earth must be "plastered by the elephants and buffaloes and it should have thorny bushes and permanent creepers" (2.21.3). They are also a part of soil mechanics. By the application of plants, the water content is decreased and the plants help in preventing soil erosion.

## BUILDINGS AND TOWERS

Following table is Ashvamedha specify dimensions of building, the component elements - halls, chambers, porches, etc.

'On the top of the rampart, he should cause a parapet to be built, double the breadth in height, built of bricks, from twelve layers up to twenty-four layers, either odd or even in number (of layers in height), with a passage for the movement of chariots, shaped like a palm-tree and with top decked with 'doves' and 'mimary-phœnix'.  
2.3.7

'He should cause towers to be made, square with the breadth, provided with steps for going down, (of the same length) as the height, and at a distance of forty digits from each other.'  
2.3.10

'Midway between (every) two towers, he should cause a tower to be built, with two stories (twice) of a hall, (and) one and a half times in height.  
2.3.11

'Having made on both sides of the parapet a 'can's head' one digit and a half (in extent), he should cause the gateway to be laid out, with space for six beams of the tower, from five digits (square) onwards increased by one digit up to eight digits square, or more, with part more than the length of one-digit part (more).  
2.3.16

'The circumference of a pillar (should be) one-sixth of the length, double than the portion fixed on the ground; the capital (should be) one fourth the length in circumference.  
2.3.18

'And at half the height of the floor, there should be a structure with pillars.  
2.3.21

'There should be an upper chamber measuring half the breadth in area of having a space one-third of it, with sides connected with bricks, with a staircase on the left running from left to right and on the other side a staircase descending on the wall.  
2.3.22

The various aspects of construction in Athanase show many principles that are similar to that of today's civil engineering.

1. Nature or topography of ground where the building has to be constructed.
2. Properties of soil on which the building should be constructed which comes under today's soil mechanics.
3. Dimensions of building components and their proportion which depends on the intention of spaces and materials.
4. Preparation and depth of foundation depending on the area of distribution.
5. Materials of construction, etc.

'Having caused to be a fire-proofed roof free from water and dampness, and having paved the walls on both sides and the bottom with big slabs of stone, he should cause an underground cellar to be made, with a framework of strong timber (over) with the ground, with three floors, with various arrangements, with ground and upper floors having well-made surfaces, with a single door, (and) with a staircase provided with a hand-hammer.  
2.5.2

'One that he should cause a treasure-chamber to be made with a partition (to cover) on two sides, with an underground basis of bricks, and surrounded by (thickened) strong goals.  
2.5.3

'This was an ancient measure of length from the bottom elbow to the tip of his little finger, normally taken at approximately to 18 inches. In this size, the size of the mouth of a pitcher to be used for measuring (the amount of sand) has been allowed to be one stoma, or 18 inches. If the measure is

which is about the circumference of the pitcher (konda). It compares well with the standard size-gauge of present day, where the funnel receiving the rainfall has diameter of 127 mm, that is circumference of about 398 mm, which is equivalent to about 14 inches.<sup>1</sup>

-257

## MATERIALS USED IN CONSTRUCTION

Timber, bricks and stones were the main construction materials. Timber was sturdy and including in the foundations due to various properties. It is strong in tension, that means, a timber beam can withstand a considerable vertical load without fracture. A timber platform in the foundation was excavated from Patalgiri.

It says: 1.264, p. 10 and that "when clay is mixed with ashes produced from lightning and leaves derived from hills when applied to the walls makes them fireproof."

## CALAMITIES

There are various types of calamities but of which earth, fire, water, air and space are considered as dangers or panche bhupas. In some parts, fire is considered as the most dangerous as the destruction caused by fire cannot be replaced and it is not that easy to escape whereas floods can be escaped using wooden boats or any other materials and destructions are also minimal when compared to fire which burns objects and makes it difficult to escape. But according to Choudaya, flood is more serious because it spreads a vast area of kilometers and a huge number of people may die whereas fire can be limited to a small area and the spread can be prevented by human means nearby lakes or other water bodies, it is said to have a thick rope, bamboo, planks, etc. For escaping from fire, houses should consist of tathla, water pots, etc. that may help in preventing the spread and escape. It is also advised not to light fire during middle quarters of a day including for cooking to prevent fire. If cooking has to be done, then it can be done outside the house.

## CONCLUSION

India became a democratic country ruled by the rulers selected by the people. Though there are various changes, the idea of architecture and town planning can be used in today's world for governing a systematic and developed nation. Choudaya, who is the reason behind the victory of Chittagong, had done considerable work on politics, business and various other areas. He had observed each and every aspect of citizens of the kingdom to make such rules. These rules are not made for the king but primarily focus on the welfare of the people. Though there are scientific and technological developments happening in our country, there are many non systematic ways of constructions. India is a nation which is diverse and there are hilly regions like Himalayan in the North, coastal regions in south and a vast number of rivers and forests filled with biodiversity. So it is also prone to floods, landslides and many other disasters. Though educated there are people inhabiting their houses in hilly areas which may fall without taking any precautions. The houses near rivers and the ones in oceans are built in the same manner. Due to lack of proper drainage systems, the water caused by floods is affecting many parts. When we are looking into the Archaeology, we could find that if we implement proper drainage systems and fire safety measures and flood safety measures.

## Appendix

- |   |   |
|---|---|
| 1. Buildings  | - Book 1, chapter 2, units 1 to 9<br>- Book 2, chapter 1, units 10, 11, 16 to 25<br>- Book 2, chapter 4, units 2<br>- Book 3, chapter 8, units 13 to 19 |
| 2. Town and country planning  | - Book 2, chapter 1, units 1 to 5<br>- Book 2, chapter 2, units 2 to 5<br>- Book 2, chapter 3, units 1 to 5<br>- Book 2, chapter 4, units 1 to 20       |
| 3. Design aspects (the foundation, Construction materials, and Excavations) | - Book 2, chapter 1, units 4 to 23<br>- Book 2, chapter 5, units 2, 5<br>- Book 3, chapter 8, units 14, 15, 19  |

## BIBLIOGRAPHY

- Arthashastra of Kautilya, Chaudhury Sambhu Nath Pustak, Varanasi, 2011.
- Allchin Bridget and Allchin Raymond, The birth of Indian civilisation, India and Pakistan before 500 BC, Penguin books, 1968.
- Bhattacharya T. P., The canon of Indian art or a study of Vaishnava, Pimsa KLM Pvt. Ltd., Calcutta, 1984.

## FEEDBACK

I would like to extend my gratitude for the DCE Scholarship (research award) for giving me an opportunity to gain knowledge from this project as well as to present my creativity. I would like to give special thanks to my guide, Dr. Vinitha E., as she gave me much information about this project. I would also like to express my gratitude to everyone who helped and encouraged me to submit this project perfectly. I hope that this would be appreciated by all its readers and meet all your expectations.



**Dr. Vinitha E.**  
Assistant Professor  
Department of Sanskrit  
Christ College (Autonomous)  
Trivandrum - 695012



**Associate Professor  
in-Charge of Principal**  
Christ College (Autonomous) Institute



## വിജ്ഞാന ഇത്തരം

മഹാശികളുടെ സാമ്പത്തിക കോളേജ് എക്സാമിനേഷൻ നികുതി വ്യാക്കണ വിജ്ഞാന വിഭാഗത്തിലെ ഏ.എം.എച്ച്, ടൈ. പി.ഒ.ഒ. ഫീസ് | അബ്ദിസ്ഥാൻ ജുപ്പാഹമാർ (ബാക്കുപ്പ് കോളേജ് ഇൻഡിയാനാഫ്രിക്കയുടെ കീഴിൽ ഇന്ത്യൻ സ്റ്റാൻഡാർഡ് ചിപ്രൂഫ്യാൾ) എപ്പാർശ്വ പത്രാവധിക്രമാദാർമ്മിക്കായ് | 19-12-2023 ദിനക്കു കോളേജിൽ ആയിരിൽ പഠിക്കിരുന്നു.

അപേക്ഷപ്പെട്ട മാർക്കറ്റേജിനും എന്നും 09-02-2024 ലെ പ്രഖ്യാതിയായ ഗവാനാവസ്ഥയിൽ ഇതു കോളേജിൽ നിന്നും ഘട്ടംകൊള്ളാൻ സാമർപ്പിച്ച കോളേജിലെ വിജ്ഞാന ഇത്തരം നിരാക്കരണമെന്നുണ്ട്.

09-02-2024



ശ്രീ മഹത്താജി ശ്രീ മഹത്താജി

Principal  
H-Block, Christ College (Autonomous),  
Irinjalakuda, Kerala-680125, India  
Mobile: +91 94461 22222



# CHRIST

COLLEGE (AUTONOMOUS)  
TIRUNELVELI, KERALA

TIRUNELVELI - 627125, KERALA, INDIA. IC Office (0472) 2825254  
E-mail: office@christcollegeplus.edu.in | @ www.christcollegeplus.edu.in  
(Reg No. 13776, No. F. 23-1/2015/A.C.U.G.C.)  
Affiliated to University of Calicut and Accredited by NAAC with 'B' Grade

## PROJECT COMPLETION CERTIFICATE (FOR ASPIRE SCHOLARSHIP CERTIFICATE - 2023-24)

This is to certify that Ms. NANDAHARIDA P M, student of GOVERNMENT SANSKRIT COLLEGE THRIPLATHURA affiliated to Mahatma Gandhi University, Kottayam has successfully completed her aspire scholarship project/internship entitled 'Concept of Architecture in Ashokaera' within the stipulated months from 10/12/2023 to 09/01/2024 under the guidance of Dr. Vinitha E, Assistant professor, Department of Sanskrit of our institution (Christ College Tirunelveli).

Principal/Director  
Associate Professor  
In Charge of Project  
and Head Administration

Name & Designation  
(Head of the Host Institution)

Dr. Vinitha E  
Assistant Professor  
Department of Sanskrit  
Christ College (Autonomous)  
Tirunelveli - 627125

Office Seal

Name & Designation  
(Guide of Project)

Dr. Vinitha E  
Assistant Professor  
Department of Sanskrit  
Christ College (Autonomous)  
Tirunelveli - 627125

- Encl 1. Project Report  
2. Acceptance Certificate from parent institution  
(as per notification dated...)

**ATTENDANCE SHEET**

**NANDAHARDA P M**

DATE	ATTENDANCE
20/12/2023	Present
21/12/2023	Present
22/12/2023	Present
23/12/2023	Present
24/12/2023	SUNDAY
25/12/2023	HOLIDAY
26/12/2023	HOLIDAY
27/12/2023	HOLIDAY
28/12/2023	HOLIDAY
29/12/2023	HOLIDAY
30/12/2023	HOLIDAY
31/12/2023	SUNDAY
1/01/2024	Present
2/01/2024	HOLIDAY
3/01/2024	SEMESTER EXAMINATION
4/01/2024	Present
5/01/2024	SEMESTER EXAMINATION
6/01/2024	Present
7/01/2024	SUNDAY
8/01/2024	Present
9/01/2024	Present
10/01/2024	Present
11/01/2024	Present
12/01/2024	Present
13/01/2024	HOLIDAY



*Dr. Nitin E.*  
 Associate Professor  
 Department of Sports  
 Chaitanya College (Autonomous)  
 Pragtalukunda - 560 725

14/01/2024	SUNDAY
15/01/2024	Present
16/01/2024	Present
17/01/2024	Present
18/01/2024	Present
19/01/2024	Present
20/01/2024	Present
21/01/2024	SUNDAY
22/01/2024	Present
23/01/2024	Present
24/01/2024	Present
25/01/2024	Present
26/01/2024	HOLIDAY
27/01/2024	Present
28/01/2024	SUNDAY
29/01/2024	Present
30/01/2024	Present
31/01/2024	Present
1/02/2024	Present
2/02/2024	Present
3/02/2024	Present
4/02/2024	SUNDAY
5/02/2024	Present
6/02/2024	Present
7/02/2024	Present
8/02/2024	Present
9/02/2024	Present



*Dr. Vinithra E*  
Assistant Professor  
Department of Dentistry  
Chaitanya Bharathi Institute of Technology  
Diploma Date - 22/01/23

सिद्धान्तकौमुद्यां कर्तृ कर्म करण षष्ठी वैशिष्ट्यं  
DISSERTATION SUBMISSION FOR ASPIRE SCHOLARSHIP  
2023-24



Submitted by:  
**KRISHNASREE BABU**  
Reg ID: 010027754017  
2nd MA Vyakarana  
Govt Sanskrit College, Tripunithura.

Under the guidance of:  
**Dr. VINITHA E**  
Assistant professor  
Department of Sanskrit  
Christ College (autonomous)  
Irinjalakuda, Thrissur.



**Dr. Vinitha E**  
Assistant Professor  
Department of Sanskrit  
Christ College (Autonomous)  
Irinjalakuda - 680125



Associate Professor  
In-Charge of Principal  
Christ College (Autonomous) Irinjalakuda

## आमुखम्

क्रिया जनकत्वं कारकत्वं अथवा क्रियां निर्वर्तयति इति कारकम् अथवा यत् क्रियान्वयि तत् कारकम्। संस्कृतव्याकरणे षड् कारकाणि सन्ति।

" कर्ता कर्मा च करणं  
संप्रदानं तथैव च ।  
अपादानाधिकरणम्  
इत्याहुः कारकाणि षट् ॥

सिद्धान्थकौमुद्यां कर्तुकर्मकरण षष्ठीविभक्तौ "षष्ठी शेषे " (२.३.५०) इति सूत्रात् आरम्भ्य चतुर्थी चाशिष्यायुष्यमद्रभद्रकुशलसुर्थहितैः (२.३.७३) इति सुत्रपर्यन्तं कर्मकारकाणि कारकयोः षष्ठीविभक्तेः कार्याणि प्रवर्तन्ते । कर्त्रा, कर्म, करण अर्थेषु षष्ठी विभक्तिः कथं प्रयुज्यते, कानि सूत्राणि तत्र प्रवृत्तानि इत्येवं रीत्या विचारः अत्र क्रियते।

## विषयम्

" कर्ता कर्मा च करणं  
संप्रदानं तथैव च ।  
अपादानाधिकरणम्  
इत्याहुः कारकाणि षट् " ॥

संस्कृत व्याकरणे कारकाणि षट् सन्ति। स्वतन्त्रः कर्ता इति सूत्रेण कर्तृसंज्ञा । कर्तुरीप्सिततमं कर्मा इति कर्मसंज्ञा । साधकतमं करणं इति करणसंज्ञा। कर्मणा यमभिप्रैति स संप्रधानं इति सूत्रेण संप्रधानम्। धुवमपाये अपादानं इति अपादानसंज्ञा । आधारोऽधिकरणम् इति अधिकरणसंज्ञा च।

कर्ता नाम किं इति चेत् , यः कार्यं करोति सः कर्ता।

रामः पाठं पठति इत्यत्र रामः इति कर्ता ।

कर्मा नाम किं इति चेत् , किम् करोति इत्यस्य उत्तरम्। रामः पाठं पठति इत्यत्र पाठं इति कर्मा ।

करणम् नाम किं इति चेत् , कारणम् भवति। विमानेन गच्छति इत्युदाहरणम्। सम्प्रदानम् नाम किं इति चेत् यस्मै दीयते तद् सम्प्रदानम् । मित्राय पुस्तकं ददाति इत्यत्र मित्राय इति संप्रदानम् । अपादानो नाम यतः विभागः भवति तद्। वृक्षात् पतति इत्युदाहरणे वृक्षात् इति अपादानम्। अधिकरणो नाम किं इति चेत् कुत्र भवति? कदा भवति? इत्यादीनि प्रश्नानां उत्तरम्। अहं गृहे अस्ति इत्यत्र गृहे इति अधिकरणम्।

सिद्धान्थकौमुद्यां कारकस्य षष्ठीविभक्तेः सूत्राणां कृते कर्तकर्मकरणार्थं विधीयानां सूत्राणि भवन्ति –

- 1. "जोऽसवीथसस् कौरणे" (२/३/५१)
- 2. "अधीगर्थदयेशां कर्मणि" (२/३/५२)
- 3. "कृत्रः प्रतीयन्ते" (२/३/५३)
- 4. "रुजार्थानां भाववचनानामज्वरेः" (२/३/५४)
- 5. "आशिषि नाथः" (२/३/५५)
- 6. "जासिनिप्रहणनाटकाथसपिषां हिंसायाम्" (२/३/५६)
- 7. व्यवहपणोः समर्थयोः (२/३/५७)

- 8. दिवस्तदर्थस्य (2/3/58)
- 9. विभाषोपसर्गे (2/3/59)
- 10. "कर्तुकर्मणोः कृति" (2/3/65)
- 11. उभयप्राप्तौ कर्मणि (2/3/66)
- 12. कृत्यानां कर्तृरि वा (2/3/71)

इत्येतानि सूत्राणि भवन्ति कर्त्रादिष्वर्थेषु षष्ठी विभक्ते प्रयुज्येते। एतेषां सूत्राणां अर्थं, उदाहरणं, व्याख्यानं च अत्र प्रदिपातयन्ति।

### 1. "ज्ञोऽसवीथसस् कौरणे" (2/3/51)

जानातेरज्ञानार्थस्य करणे शेषत्वेन विवक्षिते षष्ठी स्यात्। सर्पिषो जानम्।

अज्ञानार्थस्य ज्ञा धातोः करणे शेषत्वेन विवक्षिते षष्ठी स्यात्। अविदर्थस्य इति 'विद् जानं अर्थः यस्य सः विदर्थः, न विदर्थः अविदर्थः, तस्य ज्ञानार्थो दितरस्य' इत्यर्थः। 'जः' इत्यर्थः 'जा' धातुः। अस्य विशेषणं भवति 'अविदर्थस्य' इति। 'सर्पिषो जानम्' - सर्पिस्करणद्वारा कर्म इत्यर्थः।

जानातेरविदर्थस्य अज्ञानार्थस्य करणे कारके षष्ठी विभक्तिर् भवति। सर्पिषो जानीते। मधुनो जानीते। सर्पिषा करणेन प्रवर्तते इत्यर्थः। प्रवृत्तिवचनो जानतिरविद्रथः। अथ व मिथ्याज्ञानवचनः। सर्पिषि रक्तः प्रतिहतो वा। चित्तध्वन्त्या तदात्मना सर्वम् एव ग्राह्यं प्रतिपद्यते। मिथ्याज्ञानम् अज्ञानम् एव। अविदर्थस्य इति किम्? स्वरेण पुत्रं जानाति।

ज्ञानार्थकंभिन्नस्येति यावत्। तदाह—जानातेरज्ञानार्थस्येति। शेषत्वेनेति। संबन्धत्वेनेत्यर्थः। शेष इत्यनुवृत्तेरिति भावः। सर्पिषो ज्ञानमिति। वस्तुतः करणीभूतं यत्सर्पिस्तत्संबन्धिनी प्रवृत्तिरित्यर्थः। अविदर्थस्येति लिङ्गादेव "जा अवबोधने" इति धातोः प्रवृत्तौ वृत्तिः। "षष्ठी शेषे" इति सिद्धेऽपि "प्रतिपदविधाना षष्ठी न समस्यते" इत्येतदर्थं वचनम्।

### 2. "अधीगर्थदयेशां कर्मणि" (2/3/52)

एषां कर्मणि शेषे षष्ठी स्यात्। मातुः स्मरणम्। सर्पिषो दयनम्। ईशनम् वा।

'इकस्मरणे, नित्यमधिपूर्वं, तस्यार्थं इवार्थः यस्य सः अधीगर्थः' स्मरणार्थकम् इत्यर्थः। 'दय दानगतिरक्षणहिंसादानेषु'। परमदुखापहरणेच्छा भवति स्मरणार्थकधातुः। 'दया' धातोः 'ईश' धातोः कर्मः शेषे विवक्षते कर्म षष्ठी इत्यर्थः। "मातुः स्मरणम्", मातृसंबन्धिस्मरणम्। "सर्पिषो दयनं"। दयनम् रक्षणं वा दानं वा भवितुमर्हति। अर्थात् कर्मभूतसर्पिसंबन्धिदयनम् वा सर्पिसंबन्धिदयनम् इति। "सर्पिष ईशनम्"। सर्पिसंबन्धीयथेष्टविनियोगम् वा कर्मभूतसर्पिसम्बन्धिं ईशनम् इति वा अर्थः।

"इकस्मरणे" नित्यमधिपूर्वः, तस्यार्थं इवार्थो यस्य सोऽधीगर्थः। स्मरणार्थक इति यावत्। शेष इति। "षष्ठी शेषे" इत्यतस्तदनुवृत्तेरिति भावः। मातुः स्मरणमिति। वस्तुतः कर्मभूतमातृसंबन्धि स्मरणमित्यर्थः। सर्पिषो दयनमिति। वस्तुतः कर्मभूतसर्पिः संबन्धि दयनमित्यर्थः। "दय दानगतिरक्षणहिंसादानेषु"। दीनान्दयते इत्यत्र दुःखादवियोजयितुमिच्छतीत्यर्थः। परदुःखापहरणेच्छा दया। ईशनं वेति। "सर्पिष" इत्यनुषेष्यते। वस्तुतः कर्मभूतसर्पिः संबन्धीयथेष्टविनियोग इत्यर्थः। इदमपि समासनिषेधार्थमेव। "लोकानीष्टे" इत्यत्र तु यथास्वेच्छमाजापयतीत्यर्थः।

### 3. "कृञः प्रतीयन्ते" (2/3/53)

प्रतियन्तो गुणाधानम्। कृजः कर्मणि शेषे षष्ठी स्यात् गुणाधाने। एधोदकस्योपस्करणम्।

प्रतियत्नं इत्यस्य गुणाधानम् इत्यर्थः। कृज् धातोः कर्म शेषत्वेन विवक्षितावसरे अत्र गुणाधानार्थं षष्ठी स्यात्।

सतो गुणान्तराधानं प्रतियत्नः। करोते: कर्मणि कारके शेषत्वेन विवक्षिते प्रतियत्ने गम्यमाने षष्ठी विभक्तिर् भवति। एधोदकस्योपस्कुरुते। शस्त्रपत्रस्योपस्कुरुते प्रतियत्ने इति किम्? कटं करोति। कर्मणि इति किम्? एधोदकस्योपस्कुरुते प्रजया। शेषे इत्येव, एधोदकमुपस्कुरुते।

कृजः प्रति। कर्मणीति, शेष इति चानुवर्तते। प्रतियत्नो गुणाधानम्। तदाह—कृजः कर्मणीति। एधोदकस्योपस्करणमिति। एधशब्दः सकारान्तो नपुः सकलिङ्गः। दकशब्द उदकवाची। एधश्च दकं चेति द्वन्द्वः। यद्वा एधशब्दोऽकारान्तः पुलिङ्गः। एधश्च उदकं चेति द्वन्द्व इत्यनुपदमेवोक्तम्। वस्तुतः कर्मभूतैधोदकसंबन्धं परिष्करणमित्यर्थः।

#### 4. “रुजार्थानां भाववचनानामज्वरे: (2/3/54)

भावाकर्तृकाणां ज्वरिवर्जितानां रुजार्थानां कर्मणि शेषे षष्ठी स्यात्। चौरस्य रोगस्य रुजा। अज्वरिसंताप्योरिति वाच्यम् (वा) ॥ रोगस्य चौरज्वरः रोगस्य चौरसन्तापो वा। रोगकर्तृकं चौरसंबन्धं ज्वरादिकमित्यर्थः।

‘वक्तीति वचनः’। कर्त्रर्थे ल्युट् प्रत्ययः। प्रकृत्यर्थं न विवक्षितम्, किन्तु कर्ता एव विवक्षितम्। ‘रुजा - पीडा - रोगः इत्यर्थो येषां ते रुजार्थः’। भावः (धात्वर्थः), वचनः (कर्ता) येषां ते भाववचनाः तेषाम् भावकर्ता: इत्यर्थः। चौरस्य रोगस्य रुजा इत्युदाहरणं। रुजा इत्यतः व्याध्यात् पीडः विवक्षितः। अत्र रोगशब्देन शरीरक्षयादि रूपः विकारविशेषः इत्यर्थः।

रुजार्थानाम्। “रुजो भड़गे”। भिदादिपाठादत एव निपातनाद्वा अडि टाप्। रुजा व्याधिरर्थो येषां तेषां रुजार्थानां धातूनां भाववाचकत्वाऽव्यभिचारादभावशब्देनाऽत्र घजादिवाच्यः सिद्धरूपो भाव उच्यते। वक्तीति वचनः। बाहुलकात्कर्तरि ल्युट्। प्रकृत्यर्थस्तु न विवक्षितः, नहि भावो वक्ता सम्भवति। तस्मात्प्रत्ययस्य साधुत्वनिर्वाहायैव वचिरिति बोध्यम्। तथा चायमर्थः,—भावो वचनः=कर्ता येषां तेषां भाववचनानामिति, तदेतद्व्याचष्टे—भावकर्तृकाणामिति। “रुजार्थानां भावकर्तृकाणाम्” इत्येव सूत्रयितुं युक्तम्। चौरस्येति। चुरा शीलमस्य चौरः। अत्र कर्मणि शेषत्वविवक्षायामनेन षष्ठी। अज्वरिसंताप्योरिति वाच्यम्। रोगस्येति। “पदरुज—” इति घजा रोगो भावोऽभिधीयते, स च रुजायां कर्ता। “कर्तृकर्मणोः—” इति रोगशब्दात्षष्ठी। भावाकर्तृकाणां किम्()। श्लोषममश्चौररुजा। “मायुः पित्तं कफः श्लोषमा” इत्यमरः। इदं तत्वबोधिनीकारः।

#### 5. “आशिषि नाथः ” (2/3/55)

आशीर्थस्य नाथते: शेषे कर्मणि षष्ठी स्यात्। सर्पिषो नाथनम्। आशिषीति किम्? माणवकनाथनम्। तत्संबन्धिनी याच्जेत्यर्थः ॥

शेषे, कर्मणि, षष्ठी इति अनुवर्तन्ते। आशीर्थस्य नाथ धातोः शेषे विवक्षितः कर्मणि षष्ठी स्यात् इति सूत्रार्थः। समासाभावार्थः भवति इदं सूत्रम्। सर्पिषो नाथनम् इति उदाहरणम्। कर्मभूतसर्पिसंबन्धीः आशासनम् इत्यर्थः।

नाथृ नाधृ याच्जोपतापैश्वर्याशीःषु पथ्यते, तस्याशीःक्रियस्य कर्मणि कारके शेषत्वेन विवक्षिते षष्ठी विभक्तिर् भवति। सर्पिषो नाथते। मधुनो नाथते। आशिषि इति किम्? माणवकम् उपनाथति अड़ग पुत्रकाधीष्व। यद्यपि कर्मत्वविवक्षायां “कर्तृकर्मणोः” इति यदा षष्ठी, तदा आशिष्यपि समासोऽस्त्येव, तथापि तत्र

"गतिकारकेपपदात्कृत्" इति कृदुतरपदप्रकृतिस्वरः। समासान्तोदातत्वं तु याच्चादावेव न त्वाशिषीति निष्कर्षं  
इति कौस्तुभे स्थितम्।

#### 6. "जासिनिप्रहणनाटकाथसपिषां हिंसायाम् (2/3/56)

हिंसाधनामेषां शेषे कर्मणि षष्ठी स्यात्। चौरस्योज्जासनम्। निष्ठौ संहतौ विपर्यस्तौ व्यस्तौ वा। चौरस्य  
निप्रहणनम्। प्रणिहननम्। निहननम्। प्रहणनं वा। नट अवस्कन्दने चुरादिः। चौरस्योन्नाटनम्। चौरस्य  
क्राथनम्। वृषलस्य पेषणम्। हिंसायां किम्? धानापेषणम्॥

शेषे, कर्मणि, षष्ठी इति अनुवर्तन्ते। हिंसाधनां जास्यादि धातूना शेषत्वेन विवक्षितः कर्मणि षष्ठी स्यात्  
इति सूत्रार्थः। चौरस्योज्जासनम्। जस ताडने, जसु हिंसायां कर्मीभूतचौरसंबन्धिनिः हिंसा इत्यर्थः।  
निष्ठौ संहतौ विपर्यस्तौ व्यस्तौ वा। चौरस्य निप्रहणनम्, चौरस्य प्रणिहननं, चौरस्य निहननम्, चौरस्य  
निहननम्, चौरस्य प्रहणनम् इत्यादि उदाहरणानि।

जासि निप्रहण नाट क्राथ पिषित्येतेषां धातुना हिंसाक्रियाणां कर्मणि कारके षष्ठी विभक्तिर भवति। जसु  
हिंसायाम्, जसु ताडने इति च चुरादौ पठ्यते, तस्य इदं ग्रहणं, न दैवादिकस्य जसु मोक्षणे इत्यस्य। चौरस्य  
उज्जासयति। वृषलस्य उज्जासयति। निप्रहण इति संघातविगृहीतविपर्यस्तस्य ग्रहणम्। चौरस्य निप्रहति।  
चौरस्य निहन्ति। चौरस्य प्रहन्ति। चौरस्य प्रणिहन्ति। चौरस्य उन्नाटयति। वृषलस्य उन्नाटयति। चौरस्य  
उत्क्राथयति। वृषलस्य क्राथयति। निपातनाद् वृद्धिः। अयं हि घटादौ पठ्यते, श्रथ कन्थ क्रथ कलथ हिंसार्थः  
इति। तत्र घटादयो मितः इति मित्संजायां मितां हस्वः ६। ४। ९२ इति हस्वत्वं स्यात्। चौरस्य पितष्टि। वृषलस्य  
पितष्टि। हिंसायाम् इति किम्? धानाः पितष्टि। शेषे इत्येव, चौरम् उज्जासयति। एशाम् इति किम्? चौरं  
हिनस्ति। निप्रहण इति किम्? चौरं विहन्ति। इदं काशिका वृत्यां जासिनिप्रहणनाटकाथसपिषां हिंसायाम् इति  
सूत्रं अधिकृत्य आचार्यस्य मतम्।

#### 7. व्यवहपणोः समर्थयोः (2/3/57)

शेषे कर्मणि षष्ठी स्यात्। दयूते क्रयविक्रयव्यवहारे चानयोस्तुल्यार्थता। शतस्य व्यवहरणं पणनं वा।  
समर्थयोः किम्? शलाकाव्यवहारः। गणनेत्यर्थः। ब्राह्मणपणनं स्तुतिरित्यर्थः॥

शेषे, कर्मणि, षष्ठी इति अनुवर्तन्ते। समो, तुल्यो, अर्थो ययोस्तयोः इति विग्रहम्। तुल्यार्थाः व्यव पूर्वक 'हज्'  
धातोः 'पण' धातोः शेषत्वेन विवक्षितः कर्मणि षष्ठी स्यात्।

समर्थयोः किमिति। व्यवहारार्थकयोरिति किमर्थमित्यर्थः। शलाकाव्यवहार इति। प्रत्युदाहरणे व्यवहरतेर्न  
व्यवहारार्थकत्वमित्याह—गणनेत्यर्थ इति। वस्तुतः कर्मीभूतशलाकासंबन्धिगणनेति फलितम्। अत्र षष्ठ्याः  
पुनर्विध्यभावादस्त्येव समास इति भावः। ब्राआहणपणनमिति। पणते: प्रत्युदाहरणम्। अत्र पणिन व्यवहारार्थ  
इत्याह—स्तुतिरित्यर्थ इति। वस्तुतः कर्मीभूतब्राआहणसम्बन्धिनी स्तुतिरित्यर्थः। अत्रापि अस्त्येव समास इति  
भावः इति बालमनोरमा व्याख्यानम्।

#### 8. दिवस्तदर्थस्य (2/3/58)

दयूतार्थस्य क्रयविक्रयस्तपव्यवहारार्थस्य च दिवः कर्मणि षष्ठी स्यात्। शतस्य दीव्यति। तदर्थस्य किम्?  
ब्राह्मणं दीव्यति। स्तौतीत्यर्थः॥

अत्र तद् शब्देन पूर्वसुत्रे निर्दिष्टं व्यवहपणाः दयोदयन्ते।

'तयोः, व्यव्हपणयोः, अर्थ इवार्थो यस्य सः तदर्थः' इति विग्रहः। दयूतार्थस्य क्रयविक्रयव्यवहारार्थस्य च दिवः  
कर्मणि षष्ठी स्यात् इति सूत्रार्थः। अत्र शेषे इति न अनुवर्तते। शतस्य दीव्यति इत्युदाहरणम्। अक्षक्रीडनेन  
गृह्यति, क्रयविक्रयविषयकमूल्यसंवादेन गृह्यति इति भवति 'दिव' धातोः अर्थम्।

दिवस्तदर्थस्य पूर्वसूत्रे निर्दिष्टव्यवहमपणौ तच्छब्देन परामश्येते। तयोः=व्यवहमपणोरथं एवार्था यस्येति विग्रहः। तदाह—द्यूतार्थस्येति। द्यूतमक्षकीडनेन ग्रहणमर्थो यस्य दिव इति विग्रहः। कर्येति। क्रयविक्रयविषयकमूल्यसंवादोऽर्थो यस्यदिव इति बहुवीहि। कर्मणि षष्ठीति। इह शेष इति नानुवर्तते, कृदन्तयोगे समासनिवृत्यर्थम्। तदध्वनयन्नुदाहरति—शतस्य दीव्यतीति। शतमक्षकीडनेन, क्रयविक्रयविषयकमूल्यसंवादेन वा गृहणातीत्यर्थः। अत्र शेष इत्यननुवृत्तेः कर्मत्वप्रकारक एव बोधः। अत एव "द्वितीया द्वाआहणे" इत्युत्तरसूत्रे "गामस्य तदहः सभायां दीव्येयुः" इत्यत्र नित्यषष्ठीपाप्तौ द्वितीयार्थं मित्युक्तं भाष्यकैयटयोः सङ्गच्छत इत्यन्यत्र विस्तरः इति बालमनोरमा व्याख्यानम्।

## 9. विभाषोपसर्ग (2/3/59)

पूर्वयोगापवादः। शतस्य शतं वा प्रतिदीव्यति ॥

दिवस्तदर्थस्य इति सूत्रस्य अपवादसूत्रं भवति इदं। अत्र दिव धातुः द्यूतार्थं वा क्रयविक्रयव्यवहारार्थं वा भवति। शतस्य शतं वा प्रतिदीव्यति इत्युदाहरणं। अत्र कर्मः शतं षष्ठ्ये द्वितीये च वा।

अन्नये छानस्य हविषो वपाया मेदसः प्रेष्ये"त्येव कल्पसूत्रेषु दश्यते, ननु हविष इत्यपि, तथापि तथातिथः प्रेषो भाष्योदाहरणात्क्वचिच्छाखायां ज्ञेयः। मेदशब्देन वस्त्रखण्डतुल्यो मांसविशेष उच्यते। अनुब्राऊहि वेति। "अन्नये छानस्य हविषो वपाया मेदसोऽनुब्राऊही"त्युदाहरम्। हे भैत्रावरुण ! अगन्युददेशेन प्रदास्यमानं छानसम्बन्धियदधिविः-वपाख्यं मेदोरुपं—तत्पुरोऽनुवाक्यया प्रकाशयेत्यर्थः। प्रेष्यद्वात्वोः किम्?। अग्नये छानस्य हविर्वपां मेदो जुहुधि। हविषः किम्?। अग्नये गोमयानि प्रेष्य। देवतासंप्रदाने किम्?। माणवकाय पुरोडाशं प्रेष्य। "हविषः प्रास्त्रितत्वविशेषणे प्रतिषेधो वक्तव्यः"।

## 10. "कर्तुकर्मणोः कृति" (2/3/65)

कृद्योगे कर्तरि कर्मणि च षष्ठी स्यात्। कृष्णस्य कृतिः। जगतः कर्ता कृष्णः। गुणकर्मणि वेष्यते (वा)। नेताऽश्वस्य सुध्नस्य सुध्नं वा। कृति किम्? तदधिते माभूत्। कृतपूर्वो कटम् ॥

कृति इत्यतः कृत् प्रत्यये प्रयुज्यमाने इत्यर्थः। कर्ता च कर्मा च कर्तृ कर्मणी तयोः इति विग्रहः। षष्ठी इत्यनुवर्तते। कृद्रोहे कर्तरि कर्मणि च षष्ठी भवति। कृद्रोह इत्यस्य क्रिदन्तयोगमित्यर्थः। कृष्णस्य कृतिः इत्युदाहरणं। अत्र कृतिः इति कितन्नन्तः, कृदन्तः। एतस्य योगे कर्ता कृष्णे षष्ठीः। जगतः कर्ता कृष्णः इत्यत्र करणक्रियस्य कर्मः 'जगत्' शब्दे षष्ठी। 'नेता अश्वस्य सुखं सुखस्य वा' इति उदाहरणे नेता इति कृदन्त योगे प्रधानकर्मः अश्वात् अश्वस्य इति नित्यं षष्ठी भवति।

"कर्तृकर्मणोः कृतिः"।। गुणोति। तदुक्तम्— प्रधाने नियता षष्ठी गुणे तूभ्यथा भवेत्।। इति। कृतपूर्वाति। कृतं पूर्वमनेनेति विग्रहः। पूर्वं कृतवानित्यर्थः। अविवक्षितकर्मकतया भावे क्तः। "सुप्सुपा" इति समासः। "पूर्वादिनः" "सपूर्वाच्च" इति कर्तरि इनिः। तदविधौ "श्राद्धमनेन" इति सूत्रादनेनेत्यनुवृत्तेः। अथ कथं "धायैरानोदमुत्तमम्" इति भट्टिः ? अत्राहुः—अनित्यमिदम्, "तदर्हम्" इति निर्देशात्। स्त्रीप्रत्यययोरिति। कथं तहि "सुट्तिथोः" इति सूत्रे "सुटा सूयुटो बाधो न" इति वृत्तिः। करणत्वविवक्षायां तृतीयेति गृहाणम् इति "कर्तृकर्मणोः कृतिः" सूत्रं अधिकृत्य प्रौढमनोरमाकारस्य अभिप्रायः।

## 11. उभयप्राप्तौ कर्मणि (2/3/66)

उभयोः प्राप्तिर्यस्मिन्कृति, तत्र कर्मण्येव षष्ठी स्यात्। आश्चर्यो गवां दोहोऽगोपेन। स्त्रीप्रत्यययोरकाकारयोर्नायं नियमः (वा)। अेदिका विभित्सा वा रुद्रस्य जगतः। शेषे विभाषा (वा)। स्त्रीप्रत्यय

इत्येके । विचित्रा जगतः कृतिर्हर्हरिणा वा । केचिदविशेषेण विभाषामिच्छन्ति । शब्दानामनुशासनमाचार्यण आचार्यस्य वा।

उभयप्राप्तौ। कृतीत्यनुवर्तते। तेनान्यपदार्थत्वाद्बहुव्रीहिरित्याह—उभयोः प्राप्तिर्यस्मिन्निति। उभयशब्देन कर्तृकर्मणी परामृश्येते। तेनैकस्मिन् कृति कर्तृकर्मणोः प्राप्तिलाभादाश्चर्यमिदमोदनस्य पाको ब्राआहणानां च प्रादुर्भाव इत्यत्र नायं नियमः प्रवर्तते। तत्पुरुषे तु स्यादेवाऽत्रातिप्रसङ्ग इति भावः। पूर्वसूत्रेणैव सिद्धे नियमार्थमिदमिति ध्वनयति—कर्मण्येवेति। एवं च कर्तरि षष्ठी प्रतिषेदोऽस्य सूत्रस्य फलं, न तु कर्मणि षष्ठीविधानमिति स्थितम्।

उभयप्राप्तौ कर्मणि। पूर्वसूत्रात्कृतीत्यनुवर्तते। उभयप्राप्ताविति बहुव्रीहिः। अन्यपदार्थः कृत्। तदाहः-उभयोः प्राप्तिर्यस्मिन्कृतीति। एकस्मिन्कृति उभयोः=कर्तृकर्मणोः षष्ठीप्रसक्ततौ कर्मण्येव षष्ठी स्यात्, न तु कर्तरीति यावत्। आश्चर्य इति। अगोपकर्तृको गोकर्मको यो दोहः सोऽद्भुत इत्यर्थः। उभयोः प्राप्ताविति षष्ठीसमाश्रयणे तु ओदनस्य पाको ब्राआहणानां च प्रादुर्भाव इत्यत्रापि कर्मण्येव षष्ठी स्यान्न तु कर्तरि बहुव्रीहाश्रयणे तु एकस्यैव कृतो निमित्तत्वलाभाद्भिन्नक्रियानिरूपितकर्तृकर्मणोः षष्ठीप्राप्तौ नाय नियम इति फलति।

## 12. कृत्यानां कर्तरि वा (2/3/71)

षष्ठी वा स्यात्। मया मम वा सेव्यो हरिः। कर्तरि इति किम्? गेयो माणवकः साम्नाम्। 'भव्यगेय....' इति कर्तरि यद्विधानादनभिहितं कर्म। अत्र योगो विभज्यते। 'कृत्यानाम्'। उभयप्राप्ताविति नेति च अनुवर्तते। तेन नेतव्या व्रजं गावः कृष्णेन। ततः कर्तरि वा। उक्तोऽर्थः।

कर्तृकर्मणोः कृति २।३।६५ इति नित्यं षष्ठी प्राप्ता कर्तरि विकल्प्यते। कृत्यानां प्रयोगे कर्तरि वा षष्ठी विभक्तिर् भवति, न कर्मणि। भवता कटः कर्तव्यः, भवतः कटः कर्तव्यः। कर्तरि इति किम्? गेयो माणवकः साम्नाम्। उभयप्राप्तौ कृत्ये षष्ठ्याः प्रतिषेधो वक्तव्यः। क्रष्टव्या ग्रामं शाखा देवदत्तेन। नेतव्या ग्राममजा देवदत्तेन।

## उपसंहारम्

संस्कृत व्याकरणस्य कारकप्रकरणे षष्ठी विभक्तिः संबन्ध बोधकः। षष्ठी विभक्तिः उपयुज्य न तु कारकाणि द्योद्यन्ते। किन्तु षष्ठी विभक्तिः संबन्धार्थः उच्यते। किन्तु कारकप्रकरणे षष्ठी विभक्तिः उपयुज्य कर्तुकर्मकरणादिः प्रतिपादयन्ति। अत्र द्वादशादि प्रधानैः सूत्रैः कर्तुकर्मकरण षष्ठी वैशिष्ट्यं उच्यते। एतानां सूत्राणां अर्थसहित विवरणं, उदाहरणं, व्याख्यानम् च अत्र करोम्यहम्। षष्ठीविभक्त्यैव्ययनस्य द्रढीकरणम्, षष्ठी विभक्तिप्रतिपादकानां पाणिनीयसुत्राणां द्रढीकरणम् च अत्र अकृतम्।

## कृतज्ञतासमर्पणम्

मम परियोजनकार्यकाले बहुमूल्यं मार्गदर्शनं नित्यं प्रोत्साहनं दत्वा क्रैस्ट महाविद्यालयस्य संस्कृत विभागाध्यक्षा सहायकाध्यापिका डॉ. ई. विनिता महोदयायै धन्यवादं समर्पयामि। पुनः मम परियोजनकार्यकाले बहुकृतं त्रिप्पूनितुर संस्कृतकलालयस्य व्याकरणविभागस्य अध्यापकाः तेभ्यः धन्यवादान् समर्पयामि।

## ग्रन्थसूचि:

- लघुसिधान्तकौमुदि, चौखम्बा सुरभरती प्रकाशन्, वारणासि (2019)
- कारकप्रकरणम्, प्रोफ.आर.वासुदेवन् पोर्टि, सुकृतीन्द्र ओरियण्टल् रिसर्च् इन्स्टिट्यूट्, कोच्चि(2006)
- कौमुदीशोभा, डो. मीनांबाल् नारायणः, श्री शङ्कराचार्या संस्कृत महाविद्यालयम्, कालटि (2019)
- लघुसंस्कृतम्, डो. के. जि. पौलोस्, द्रोणाचार्या प्रकाशन्, कोषिक्कोट् (2006)
- अभ्यासदर्शिनि, जनार्दन हेगडे, संस्कृतभारति, बांगलूर (2016)
- संस्कृतदीपिका, पण्डित. के. एस्. पि. शाश्वती, रामकृष्ण आश्रम, कोट्टयम् (1931)

## प्रतिपुष्टि

अहं DCEscholarship (Research Award ) इत्यस्य आभारं प्रकटयितुम् इच्छामि यत् तेन अस्मात् परियोजनायाः ज्ञानंप्राप्तुं तथा च मम सृजनशीलतां प्रस्तुतुं अवसरः दत्तः। अहं मम मार्गदर्शकाय विशेषं धन्यवादं दातुमङ्ग्लच्छामि यतः सा मम कृते अस्य परियोजनायाः विषये बहु सूचनां दत्तवती .अहम् अपि मम कृतज्ञानां प्रकटयितुमङ्ग्लच्छामि ये मम साहाय्यं कृतवन्तः, एतत् परियोजनां सम्यक् प्रस्तुतुं प्रोत्साहयन्ति च। आशासे यत् एतत्सर्वे: पाठकैः प्रशंसितं भविष्यति, भवतः सर्वान् अपेक्षान् च पूर्यिष्यति।

  
Dr. Vinitha E  
Assistant Professor  
Department of Sanskrit  
Christ College (Autonomous)  
Irinjalakuda - 680125



  
Associate Professor  
In-Charge of Principal  
Christ College (Autonomous), Irinjalakuda



### വിദ്യത്തിലെ ഉത്തരവ്

ഒമ്പാട്ടിരുന്ന് സംസ്കൃത കോളേജ് തൃപ്പൂണിത്തുറ, സംസ്കൃത വ്യാകരണ വിഭാഗത്തിനിയായ കുഷ്ണഗ്രീ ബാബു, ഡോ. വിനിത് ഇ (അസിസ്റ്റന്റ് പ്രൊഫസർ) കെക്രൂ കോളേജ് ഇരിഞ്ഞാലക്കുടയുടെ കീഴിൽ ആസ്പദയർ സ്കോളർഷിപ്പുമായി ബന്ധപ്പെട്ട പഠന പ്രവർത്തനങ്ങൾക്കായി 19-12-2023ൽ കെക്രൂ കോളേജിൽ ജോയിൻ ചെയ്തിരുന്നു.

ആസ്പദയർ സ്കോളർഷിപ്പിന്റെ പഠനം 09-02-2024 തോന്ത്രിയായ സാഹചര്യത്തിൽ ഈ കോളേജിൽ നിന്നും ഒമ്പാട്ടിരുന്ന് സംസ്കൃത കോളേജിലേക്ക് വിദ്യത്തിലെ ചെയ്ത ഉത്തരവാകുന്നു.

09-02-2024



**Associate In-Charge of Principal**  
Christ College (Autonomous) Irinjalakuda



**PROJECT COMPLETION CERTIFICATE**  
(FOR ASPIRE SCHOLARSHIP CERTIFICATE - 2023-24)

This is to certify that Ms. KRISHNASREE BABU, student of GOVERNMENT SANSKRIT COLLEGE THRIPIUNITHURA affiliated to Mahatma Gandhi University, Kottayam has successfully completed her aspire scholarship project or internship entitled 'सिद्धान्तकौमुद्यां कर्तृ - कर्म-करण षष्ठी वैशिष्ट्यम्' within the stipulated months from 19/12/2023 to 09/01/2024 under the guidance of Dr. Vinitha E, Assistant professor, Department of Sanskrit of our institution (Christ College Irinjalakuda)

Principal/HOD/Institution  
Associate Professor  
In-Charge of Principal  
Christ College (Autonomous) Irinjalakuda

Name & Designation  
(Head of the Host Institution)  
**Dr. Vinitha E**  
Assistant Professor  
Department of Sanskrit  
Christ College (Autonomous)  
Irinjalakuda - 680125



Name & Designation  
(Guide of Host Institution)  
**Dr. Vinitha E**  
Assistant Professor  
Department of Sanskrit  
Christ College (Autonomous)  
Irinjalakuda - 680125

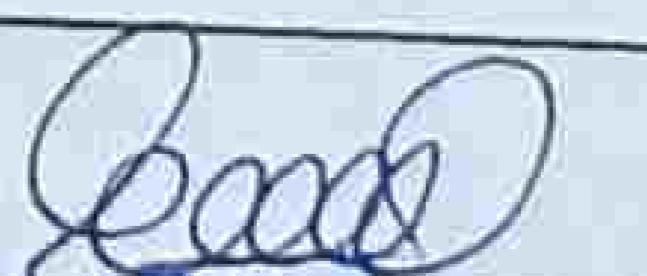
- Encl 1. Project Report  
2. Attendance Certificate from parent Institution  
(as per notification dated..)

**ATTENDANCE SHEET**

KRISHNASREE BABU

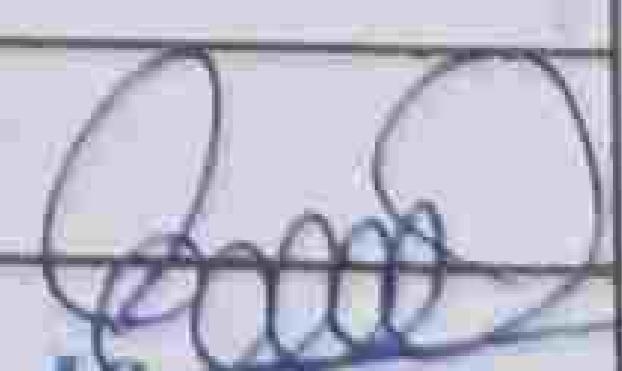
DATE	ATTENDANCE
20/12/2023	Present
21/12/2023	Present
22/12/2023	Present
23/12/2023	Present
24/12/2023	SUNDAY
25/12/2023	HOLIDAY
26/12/2023	HOLIDAY
27/12/2023	HOLIDAY
28/12/2023	HOLIDAY
29/12/2023	HOLIDAY
30/12/2023	HOLIDAY
31/12/2023	SUNDAY
1/01/2024	Present
2/01/2024	HOLIDAY
3/01/2024	SEMESTER EXAMINATION
4/01/2024	Present
5/01/2024	SEMESTER EXAMINATION
6/01/2024	Present
7/01/2024	SUNDAY
8/01/2024	Present
9/01/2024	Present
10/01/2024	Present
11/01/2024	Present
12/01/2024	Present



  
**Dr. Vinitha E**  
 Assistant Professor  
 Department of Sanskrit  
 Christ College (Autonomous)  
 Irinjalakuda - 680 125

13/01/2024	HOLIDAY
14/01/2024	SUNDAY
15/01/2024	Present
16/01/2024	Present
17/01/2024	Present
18/01/2024	Present
19/01/2024	Present
20/01/2024	Present
21/01/2024	SUNDAY
22/01/2024	Present
23/01/2024	Present
24/01/2024	Present
25/01/2024	Present
26/01/2024	HOLIDAY
27/01/2024	Present
28/01/2024	SUNDAY
29/01/2024	Present
30/01/2024	Present
31/01/2024	Present
1/02/2024	Present
2/02/2024	Present
3/02/2024	Present
4/02/2024	SUNDAY
5/02/2024	Present
6/02/2024	Present
7/02/2024	Present
8/02/2024	Present
9/02/2024	Present



  
**Dr. Vinitha E.**  
 Assistant Professor  
 Department of Sanskrit  
 Christ College (Autonomous)  
 Irinjalakuda - 680123



**CHRIST**

UNIVERSITY

DEEMED TO BE A UNIVERSITY

CHRISTIAN COLLEGE

CHRISTIAN COLLEGE

## FACULTY CERTIFICATE

The Honourable Dr. M. S. Shrivastava, Vice-Chancellor, C.D.T.U.

invites the Director of Studies, Mrs. Savitri Devi, to nominate

the following candidate for being given a certificate in

Class XI in the subject of Hindi.

(b)



(b)



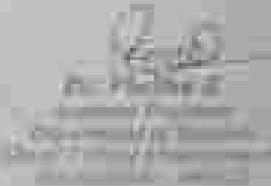
## CONSENT LETTER

I hereby agree to be present at the following time(s) for my child's  
graduation. Kindly inform me if there are any changes.

Graduation Date: \_\_\_\_\_

TIME:

TIME:



NAME:

DATE:



## **GOVERNMENT SANSKRIT COLLEGE, TRIVANDRUM**

**THE UNIVERSITY OF TRIVANDRUM**

**UNIVERSITY OF TRIVANDRUM**



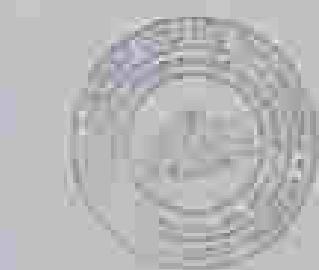
### **TO THE HONOURABLE MEMBER OF CONGRESS**

The Government Sanskrit College, Trivandrum, a constituent college of the University of Trivandrum, is the oldest educational institution of the State of Kerala.

The college was founded by the Government of the State of Travancore in 1820. It was later renamed as Government Sanskrit College and became a constituent college of the University of Travancore.

The college has been granted the status of a deemed university by the Government of Kerala.

The college is affiliated to the University of Kerala.



**THE UNIVERSITY  
OF TRIVANDRUM**

**THE UNIVERSITY  
OF TRIVANDRUM**



Sl.No.	RegNo	Name
1	010030952017	JISNA C JAMES
2	010027754017	KRISHNASREE BABU
3	020432021417	NANDAHARIDA P M
4	010027480305	SAMEERA V P

## SITES



[Department](#)

[About us](#)

[Help](#)

[Contact us](#)

**SECURITY PORTALS    Registration**

[Security Awareness Portal](#)    [New Registrations](#)





# CHRIST

COLLEGE (AUTONOMOUS)  
IRINJALAKUDA, KERALA

IRINJALAKUDA - 680125, KERALA, INDIA. (Office (0480) 2625255  
E-mail: office@christcollege.edu.in. @www.christcollegekt.edu.in  
(Reg. No. T37775; No. F. 23-1/2015/A.C.U.G.C.)  
Affiliated to University of Calicut and Re-accredited by NAAC with 'B' Grade.

**PROJECT COMPLETION CERTIFICATE**  
**(FOR ASPIRE SCHOLARSHIP CERTIFICATE - 2023-24)**

This is to certify that Ms. NANDAHARIDA P M, student of GOVERNMENT SANSKRIT COLLEGE THRIPLUNITHURA affiliated to Mahatma Gandhi University, Kottayam has successfully completed her aspire scholarship project/internship entitled 'Concepts of Architecture in Arhaanastra' within the stipulated months from 19/12/2023 to 09/01/2024 under the guidance of Dr. Vimala E, Assistant professor, Department of Sanskrit of our institution (Christ College Irinjalakuda).

  
Principal/HOD/Institution  
Associate Professor  
In-Charge of Principal  
Christ College (Autonomous) Irinjalakuda - 680125

  
Name & Designation  
(Head of the Host Institution)

  
Dr. Vimala E  
Associate Professor  
Department of Sanskrit  
Christ College (Autonomous)  
Irinjalakuda - 680125



Office Seal

  
Name & Designation  
(Guide of Host Institution)

  
Dr. Vimala E  
Associate Professor  
Department of Sanskrit  
Christ College (Autonomous)  
Irinjalakuda - 680125

- Encl 1. Project Report  
2. Attendance Certificate from parent Institution  
(as per notification dated - )