

A Critical Study of Hemangada Thakkura's *Grahaṇamālā*

ABSTRACT:

Hemangada Thakkura (Śaka 1530-1590) in his text *Grahaṇamālā*, has listed the data of both Solar and Lunar eclipses from śaka 1542 to 2630 (i.e., 1620 to 2708 C.E). In a long period of 1089 years, the occurrences of around 1432 eclipses are listed. The contents of each eclipse are given in the following format:

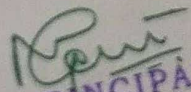
Contents:

1. Śaka
2. *Dyuvṛnda* (*ahargaṇa*) i.e., number of days since the beginning of that solar year.
3. Instant of fullmoon and newmoon.
4. *Nakṣatra* from *Āśvinī* etc., for eclipse day.
5. *Yoga* (*Viṣkambha* in *ghatis* etc.,)
6. Week day; Number of elapsed days in the corresponding solar month.
7. Name of the Lunar month and Half-duration of the eclipse.
8. Beginning of the eclipse (*Sparsakāla*).
9. End of the eclipse (*Mokṣakāla*).
10. Moon's Latitude (South or North).

In this proposed project I will be working out the circumstances of each eclipse and verify the veracity of the data given by Thakkura. Further explanatory note relevant remark will also be made using traditional Indian procedures as well as modern computations.

Work-Plan:

1. Studying the procedures and algorithms of the eclipses given in traditional Indian *Siddhānta* and modern texts.
2. Studying and understanding the contents of the *Grahaṇamālā* (about 1432 eclipses).


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