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# Valuation of Aeri Campus, Dr.M.G.R Nagar, Hosur-635109, Krishnagiri Dist, Tamil Nadu

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**ABSTRACT:** The present market value of the AERI campus is valued by land and building method in which the belting and depreciation method is adopted for land and building valuation. Total station is used to find the land and built-up area of AERI campus. The present market value of AERI campus is Rs.809,66,55,000/-.

**KEYWORDS:** Market value, Belting, Depreciation, Total station.

### I. INTRODUCTION

Valuation is a method or Technique of estimating the present value of a property. The property may be a building, a factory, land or anything. The present value of the property may be estimated by present selling price or income or rent, it is fetching. The value of the property depends upon the nature of structure, life, maintenance, location, bank interest, legal control. To assess a property's value, a valuer will measure the property, record details on the number and type of rooms, along with fixtures, fittings and any improvements. A property's unique attributes will also be taken into account, such as: Location, Building structure and condition, Building and structural faults, Standard of presentation and fit-out, Access, such as good vehicle access and a garage, Planning restrictions and local council zoning.

It also depends upon supply and demand position and the purpose for which valuation is being done. The main purpose of the valuation are purchasing or disposing off property, acquisition, rent fixation, taxation, and security of loans. Land and Building Method, Rent Capitalization Method, Development Method, Profit Method, Direct Comparison Method are the different methods of valuation.

### OBJECTIVES

The main objectives of our study includes

- To prepare the entire map of the campus, including location of different building blocks, roads, playgrounds, stadium, workshops, drainages, gardens, parking area, all round compound wall and entrance plaza, by using Total Station.
- To determine the entire land area of the campus, build-up area of different building blocks, area of roads, playgrounds, stadium, workshops, gardens, parking areas and compound wall length.
- To arrive a fair, present market value of the AERI campus by adopting land and building method.

### DETAILS OF STUDY AREA

Adhiyamaan Educational and Research Institutions campus, located in Dr.M.G.R Nagar, Hosur, TamilNadu, India. The campus is spread over 250 acres abutting National Highway NH-7. The institution is 6 km from Hosur bus stand and 8 Km from railway station. It is 42 km from Bangalore. The Adhiyamaan College started in 1993/94, is one of the educational institutions developed by Adhiyamaan Educational and Research Institution Trust. It is the first engineering college to be started in the most backward Dharmapuri District of the State of Tamil Nadu. It was originally affiliated to University of Madras.

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Fig 1.1: Satellite image of AERI Campus

## II. METHODOLOGY

The valuation of present market value of AERI campus involves steps to ensure successful implementation. The various data's collected are as follows.

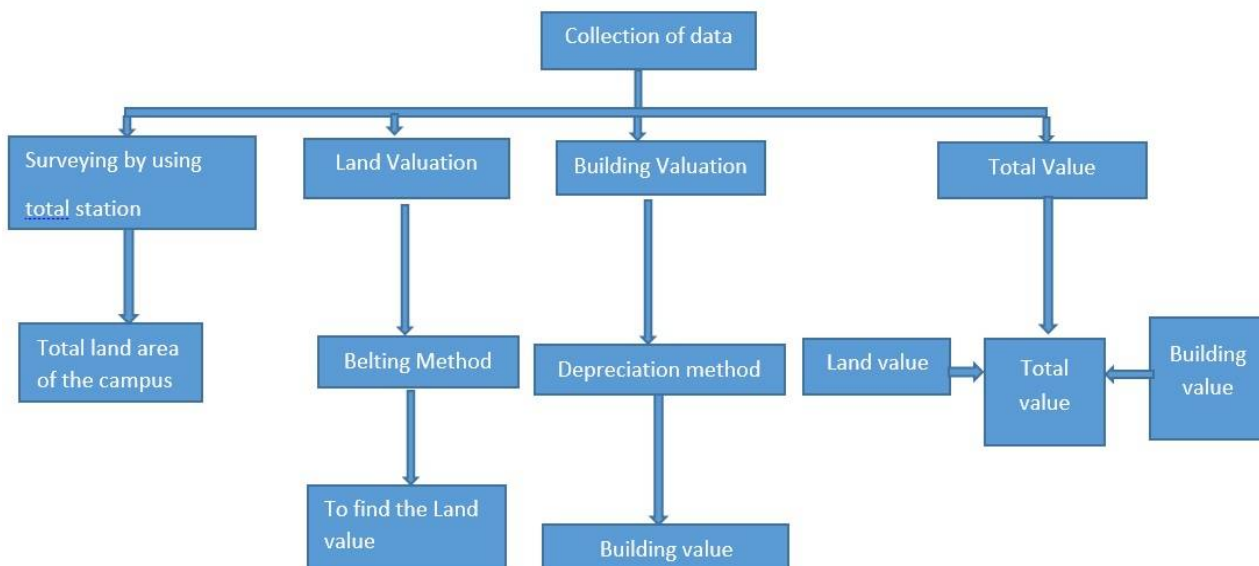


Fig 2.1: Flowchart showing the Methodology of our work

### METHODOLOGY FOR LAND VALUATION

When a plot of big size is to be valued or when a plot of more depth is to be valued, it is logical to adopt the method of Belting. It is due to the principle that the value of land in general decrease as the depth of the plot increases or in other words, the front land abutting road is more valuable than the rear land away from road.

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Fig 2.2: Belting Method

As the size and depth of the AERI campus is too large, we prefer the Belting method to calculate the value of the AERI campus. According to the Belting method, the whole part of the land is divided into three belts. The depth of First belt is suitably adjusted. The depth of second belt is kept 50% more than that of first belt and depth of third belt is kept 50% more than that of second belt.

Considering the size, shape, location and various other factors affecting rate of land, a suitable rate of is estimated and that is taken for the first belt. For second belt two third of rate of first belt is taken and for third belt one-half of rate of first belt is taken.

### III.RESULT AND DISCUSSION

The AERI campus map is created using the Auto CADD software which is in the scale of 1:6000. The map includes all the buildings, parking area, grounds, drainage, roads, and the waste water treatment plants. The fig 2.2 shows the map of the AERI campus. The AERI campus covers a total area of around 250 acres. Most of the buildings are occupied in north eastern and southern eastern parts. The sports grounds are present in the southern parts of the campus. The south western parts are of vegetative lands. The north western part is of barren lands.

By using the area command in Auto CADD Software we have found out the built-up area of different blocks, Roads, Gardens, Parking area, Grounds seen in the AERI Campus Map. And also by using Tape, area of different building blocks, Roads, Gardens, Parking area, Grounds are found out. The table 2.2 shows the area of different building blocks, Roads, Gardens, Parking area, Grounds of the AERI campus.

Value by adopting GLR (Guide line rate)

Guide line rate	Rs 300/sq.ft
Total value land by adopting GLR (10890000sq.ft x 300/sq.ft)	Rs 326,70,00,000/-

Table 3.1 Guideline rate

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Value by adopting PMR (Prevailing market Rate)

Prevailing market Rate	Rs.400/sq ft to 800/sq ft
Adopted market Rate	Rs.600/sq ft
Total value land by adopting PMR (10890000sq.ft x 600/ sq ft)	Rs.653,40,00,000 /-

**Table 3.2: Prevailing market Rate**

As the size and depth of the AERI campus is too large, we prefer the Belting method to calculate the value of the AERI campus. According to the Belting method, the whole part of the land is divided into three zones. The market value of first zone of the AERI campus is Rs.800/- per square feet. The market value of the second zone of AERI campus is 75 % value of first zone value i.e.,  $(0.75 \times 800 = \text{Rs.}600 \text{ /-})$  and the market value of the third zone of the AERI campus is 50% value of the first zone value i.e.,  $(0.5 \times 800 = \text{Rs.}400 \text{ /-})$ . So the average prevailing market rate of AERI campus is Rs. 600 /- per square feet.



**Fig3.1: BELTING METHOD OF AERI CAMPUS**

This fig explains the area which is divided into 3 zones namely; A, B, C. According to the Belting method the first zone depth X is taken as 25% of total depth i.e.,  $X = (0.25 \times 1.381 = 0.34525 \text{ km})$  and the corresponding area A is 55.24 acres. And the second zone depth Y is taken as 1.5 times of the X value i.e.,  $Y = (1.5 \times 0.34525 = 0.51788 \text{ km})$  and the corresponding area B is 122.71 acres. Finally the third zone depth is taken as the remaining depth of the total depth i.e.,  $Z = 1.381 - (0.34525 + 0.51788 = 0.51787 \text{ km})$  and the corresponding area Z is 72.04 acres.

## QUALITY OF BUILDINGS

- The construction types of the buildings are framed structure.
- The quality of construction of the buildings are 1<sup>st</sup> class.
- The appearance of the buildings are common.
- The maintenance of the buildings are good.

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### AREA, TYPES AND YEAR OF CONSTRUCTIONS OF DIFFERENT BUILDINGS

S.n	Name of the buildings	Year of Constructions (As reported / as observed / as per the deed)	Roof	Plinth Area (Sq ft)	PMR value (Rs)
1	Main Block	1994	RCC	281242	20,84,00,322
2	MBA Block	1994	RCC	90957	6,46,70,427
3	Office Building	1995	RCC	14847	3,80,91,960
4	Food Court	2014	RCC	59763	3,90,97,080
5	Civil Block	2010	RCC	125031	11,28,40,477
6	EEE Block	2008	RCC	47902	3,86,80,865
7	Mechanical Block	2004	RCC	71040	6,00,64,320
8	Polytechnic Block	2000	RCC	64572	5,21,41,890
9	Library	2010	RCC	7365	11,72,39,500
10	Arts & MGR college 1	2001	RCC	90309	7,29,24,517
11	Arts & MGR college 2	2014	RCC	41688	3,88,11,528
12	Pennar Hostel	1993	RCC	91340	6,76,82,940
13	Cauvery Hostel	1993	RCC	200040	20,37,17,208
14	Bhavani Hostel	1999	RCC	171191	12,05,83,260
15	Power House New	2013	RCC	6474	60,27,294
16	Power House old	2008	RCC	1631	12,00,416
17	P.E.T Room		RCC	6222	54,38,028
18	Medical Centre	2007	RCC	2006	14,76,416
19	Indoor stadium	2012	RCC	208486	16,60,55,270
20	Sports Gallery	2009	RCC	41688	3,72,27,384
21	Workshop(Civil)	1995	GI sheet	28,244	1,00,40,742
22	Workshop(EEE)	2000	GI sheet	20,938	79,16,564
23	Workshop (Mech)	2000	GI sheet	12,536	68,44,656

**Table 3.3 Area, Types and Year of constructions of different buildings**

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### SERVICES AND AMENITIES

**Table 3.4 Services and Amenities**

S.NO	Description	flooring	Area (Sq ft / km)	Plinth Rate / (Sq ft / m)	Total value
1	Road	concrete	2,80,079	Rs.300	Rs.8,40,23,700/-
2	Baseket ball Ground	concrete	1,769	Rs.100	Rs.1,76,900 /-
3	Football Ground	grass	17,415	Rs.100	Rs.2,61,225 /-
4	Cricket Ground	grass	21,455	Rs.15	Rs.3,21,825 /-
5	Hockey Ground	mud	6,685	Rs.10	Rs.66,850 /-
6	Cricket Ground 2	mud	24,117	Rs. 10	Rs.2,41,170 /-
7	Tennis court	mud	1,799	Rs. 10	Rs.17,990 /-
8	Batminton	mud	1,587	Rs. 10	Rs.15,870 /-
9	Volley ball	mud	1,980	Rs. 10	Rs.19,800 /-
10	Garden	grass	18,291	Rs.13	Rs.2,37,783 /-
11	Compound Wall	Size Stone masonry	4.616	Rs.1200	Rs.55,39,200 /-
<b>Total</b>					Rs. 9,09,22,313



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### ABSTRACT OF VALUATION

**Table 3.5: Abstract of valuate**

S.no	Description	Value by adopting GLR	Value by adopting PMR
1	Total Land value	Rs.326,70,00,000 /-	Rs.653,40,00,000 /-
2	Total Building value	Rs.147,17,33,036 /-	Rs.147,17,33,036 /-
3	Services and Amenities (road, ground & compound wall)	Rs.9,09,22,313 /-	Rs.9,09,22,313 /-
4	Total	Rs.335,79,23,313 /-	Rs.809,66,55,349 /-
Factors favouring for additional value			
	Add		
	1		Nil
	2		
	3 (+)		
Factors favouring for additional value			
	Less		
	1		Nil
	2		
	3 (+)		
<b>Present Market Value of The property</b>			Rs.809,66,55,349 /-
			Say Rs.809,66,55,000/-
Any other Details:			
Forced sale Value of the Property (10% Less than the Market Value)			Rs. 728,69,89,500/-

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## DISCUSSION

A Total station is an electronic /optical instrument used in modern surveying and building construction. It is an electronic theodolite integrated with an electronic distance meter to read slope distances from the instrument to a particular point. Total stations are able to measure distances to an accuracy of 2-3 millimeters per kilometer, and angles to 1-second ( $1^{\circ}/3,600^{\circ}$ ) accuracy. One second in an angle is equivalent to the width of pencil lead at 100 meters. Even small-size surveying instruments are remarkably accurate. So, we used the Total station instrument to prepare the map of the entire campus and using Auto CADD software we calculated the area of the entire campus.

When a plot of big size is to be valued or when a plot of more depth is to be valued, it is logical to adopt the method of Belting. It is due to the principle that the value of land in general decrease as the depth of the plot increases or in other words, the front land abutting road is more valuable than the rear land away from road. As the size and depth of the AERI campus is too large, we prefer the Belting method to calculate the value of the AERI campus. According to the Belting method, the whole part of the land is divided into three belts. The depth of First belt is suitably adjusted. The depth of second belt is kept 50% more than that of first belt and depth of third belt is kept 50% more than that of second belt. The reduction in value of a tangible fixed asset due to normal usage, wear and tear, new technology or unfavorable market conditions is called Depreciation. It is allocation of the cost of a fixed asset in each accounting period during its expected time of use. We preferred Depreciation method for Building valuation. Finally we assumed 1% Depreciation per annum.

Hosur is a town and a municipality in krishnagiri district in the Indian state of Tamilnadu. It is the largest town and headquarters of the Hosur taluk in krishnagiri district. It is located 35 kms from Bangalore, 48 kilometers from krishnagiri, 82 kilometers from dharmapuri and 306 kms west of Chennai, the state capital. It is also an industrial area, which is growing day-by-day as compared to population growth. Among all the places in Tamilnadu, Hosur is the fastest Growing place. Adhiyamaan College is a vast area campus, which covers about 250 acres approximately, the institution is spread over a sprawling campus with calm surroundings, and has 3 colleges namely: ADHIYAMAAN Engineering College, M.G.R Arts & science, polytechnic College and creating. Conducive for higher education. Hosur is a fast growing major industrial town with various Industrial units like TITAN, Ashok Leyland, Hindustan Motors, TVS and a host of other small, Medium scale industries. The College has established very good rapport with Industries so that majority of students do their project work in these Industries.

Among the Different methods of valuation such as: Land and Building Method, Rent Capitalization Method, Development Method, profit Method and Direct Comparison Method are the various method of valuation. So, finally we prefer the Land and Building method to calculate the Present Market value of the AERI campus. The total market value of the AERI CAMPUS IS Rs.809,66,55,000 /-

## IV. CONCLUSION

From the above study following were the results concluded, the total area of the AERI campus is 250 acres, the Land value of the AERI campus by adopting Belting Method is Rs.653,40,00,000/-, the Building value of the AERI campus by adopting Depreciation Method is Rs.147,17,33,036/-, the value of Services and amenities which includes road, ground, compound wall is Rs.9,0922,313. Among the Different methods of valuation such as: Land and Building Method, Rent Capitalization Method, Development Method, profit Method and Direct Comparison Method are the various method of valuation. So, finally we prefer the Land and Building method to calculate the Present Market value of the AERI campus. The total market value of the AERI CAMOUS IS Rs.809, 66, 55,000 /-.

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