New colleges of Architecture in the State

1.   Introduction

The technical education scenario in Kerala has undergone phenomenal changes in recent years due to the sanctioning of self-financing colleges in the private sector since 2000. When eighth five year plan ended in 1997, Kerala had only 15 engineering colleges with an annual intake of 4844 students but at present there are altogether 169 engineering colleges with a approved annual intake of **55665,** which means that annual intake of students in UG engineering colleges in Kerala constitutes 3.78 percent of all India UG students intake. The growth of various engineering disciplines during these years has mainly occurred in the private sector.

2.   B.Arch programmes in India

Under the provisions of the Architects Act 1972, the Council of Architecture is required to prescribe the Minimum Standards of Architectural Education for imparting 5-year undergraduate degree programme in Architecture   (i.e. Bachelor of Architecture degree programme) and also monitor the compliance of the same by the approved Architectural Institutions all over the country for award of recognized qualifications under the Act.

There are about 538 institutions in India, which are imparting undergraduate degree course in Architecture leading to recognized qualifications. The standards of education being imparted in these institutions (constituent colleges/departments of universities, deemed universities, affiliated colleges/schools, IITs, NITs and autonomous institutions) is governed by Council of Architecture (Minimum Standards of Architectural Education) Regulations, 1983, which set forth the requirement of eligibility for admission, course duration, standards of staff & accommodation, course content, examination etc. These standards as provided in the said Regulations are required to be maintained by the institutions.

The Council oversees the maintenance of the standards periodically by way of conducting inspections through Committees of Experts. The Council is the statutory body that keep the Central Government informed of the standards being maintained by the institutions and is empowered to make recommendations to the Government of India with regard to recognition and de-recognition of a qualification. The rules / standards for Architecture programmes in India are governed by the following Regulations or norms.

a) Amendment in eligibility for B.Arch.Course

b) COA Minimum Standards of Architectural Education, 2017 submitted to MHRD

c) COA (Minimum Standards of Architectural Education) Regulations, 1983

d) Minimum Standards of Architectural Education, 2008

e) Minimum Qualifications & Experience for Teaching Posts

f) Minimum Standards of Architectural Education for PG Programme, 2006

g) Guidelines for Degree of Ph.D. in Architecture

3.   Engineering Education in Kerala

Engineering Education in the state has been transformed conspicuously in recent years due to the sanctioning of self-financing colleges since 2000. It may be noted that during the VIIIth FYP (1992-1997), Kerala had only 15 engineering colleges with an annual intake of 4844 students but at present there are altogether 167 engineering colleges with an approved annual intake of 58767, which shows that annual intake of students in UG engineering colleges in Kerala constitutes 3.78 percent of all India UG students intake. (Fig/Table 1). It is reasonable to expect that the growth of various engineering disciplines during these years, since it has mainly occurred in the private sector, reflects the market demand or the people's preference for them. The growth of public sector self-financing engineering colleges, a unique feature of Kerala, has also contributed to this growth process. This has continued ever since with minor exceptions with certain disciplines like Architecture Programmes.
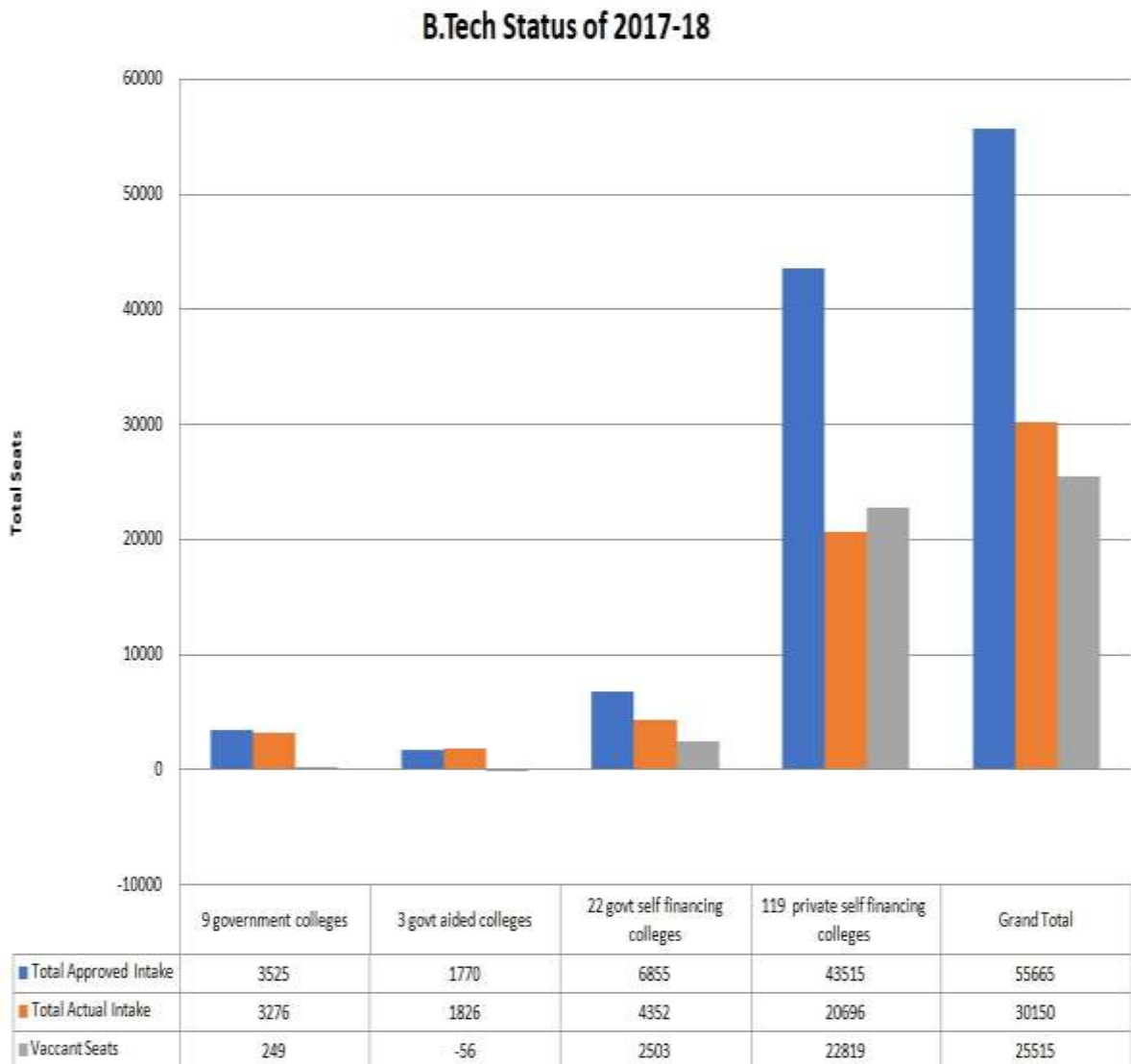

B.Tech Status of 2017-18

	9 government colleges	3 govt aided colleges	22 govt self financing colleges	119 private self financing colleges	Grand Total
Total Approved Intake	3525	1770	6855	43515	55665
Total Actual Intake	3276	1826	4352	20696	30150
Vaccant Seats	249	-56	2503	22819	25515

Fig.1 / Table 1 - Engineering Colleges in Kerala
Source:– Data base - Kerala Technical University (2017)

4.   B.Arch programmes in Kerala

Unlike the status of B.Tech engineering education in general, the total number of B.Arch degree programmes has more or less remained intact with an annual approved intake capacity 440, and more than 90% of seats are seen filled annually. Unaffected by the influx of self-financing colleges, Architecture education has remained or confined within the government and aided engineering colleges over these years. There are only 3 colleges in government sector offering UG courses in architecture, and only 1 college in aided sector and 4 colleges are in the private self-financing sector.

Table shows Colleges offer B.Arch-Programmes

Type	Institution Name	District	Program Type	Approved NRI	Approved PIO	Approved Intake	Actual Intake
Govt. Aided	TKM COLLEGE OF ENGINEERING	KOLLAM	UG	No	No	80	73
Govt.	RAJIV GANDHI INSTITUTE OF TECHNOLOGY,KOTTAYAM	KOTTAYAM	UG	No	No	40	38
Self financing (Pvt)	MES COLLEGE OF ENGINEERING, KUTTIPURAM	MALAPPURAM	UG	Yes	No	40	40
Govt.	GOVERNMENT ENGINEERING COLLEGE THRISSUR	THRISSUR	UG	No	No	40	39
Govt.	COLLEGE OF ENGINEERING TRIVANDRUM	THIRUVANANTHAPU	UG	No	No	40	39
Self financing (Pvt)	COLLEGE OF ENGINEERING & TECHNOLOGY-PAYYANUR	KANNUR	UG	Yes	No	40	29
Self financing (Pvt)	COLLEGE OF ARCHITECTURE TRIVANDRUM	THIRUVANANTHAPU	UG	No	No	120	119
Self financing (Pvt)	BISHOP JEROME INSTITUTE	KOLLAM	UG	Yes	No	40	39
					Total	440	416

Table 2:- Colleges offering B.Arch Programmes
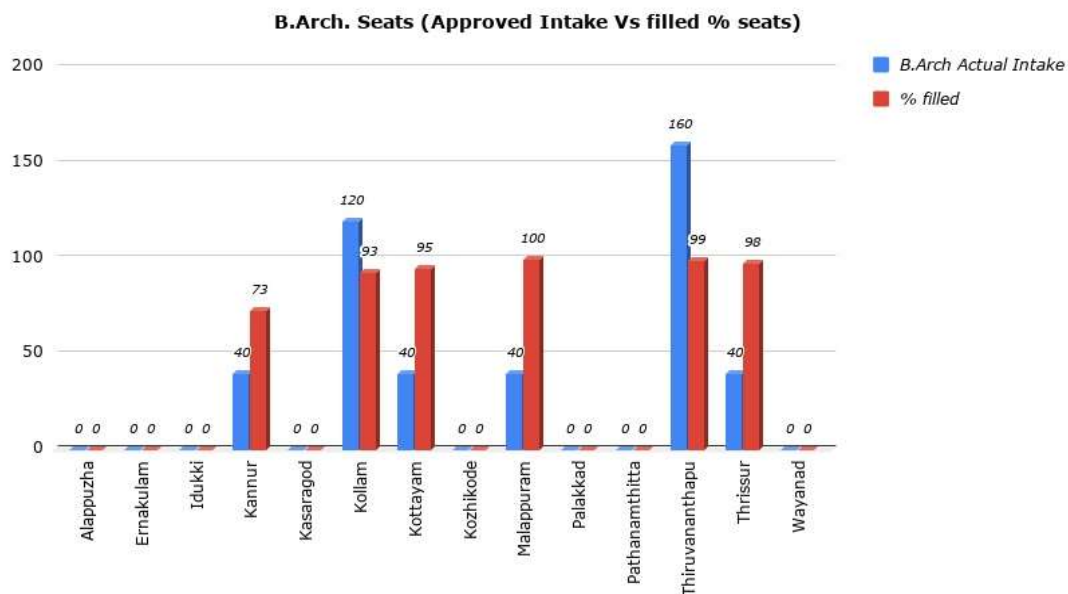Source:- Data base - Kerala Technical University (2017)

Fig.2–B.Arch Seats
Source:– Data base - Kerala Technical University (2017)

Architecture programmes remained largely unaffected by the self financing wave till 2000. But in recent years due to the sanctioning of self-financing colleges in the private sector, the number of seats in Architecture degree programmes have also increased. There are 440 approved intake capacity in Architecture degree programme in 8 colleges. A district-wise representation and share of colleges having B.Arch UG programmes are given in the chart above. It shows that there are unfilled seats in B. Arch UG programmes in the State except in Malappuram district.

5.   Future Trend in Architecture

- It is the high time, that architectural engineering has to take a turn in compliance with the sustainability and environment friendly structures in the built environment sector of the state. The policy makers has to look into this aspect while new architecture programmes and institutions are designed in the state.
- Crowd funding and collaborative design have become increasingly popular approaches to architectural projects, with focus on the green infrastructure and energy efficiency.
- Environmental science and social anthropology will become active team members in design studios.
- The world of 3D virtual design and engineering is a fast growing field in architectural engineering.
- Land is becoming scarce as the world's population grows and environmental changes shrink the amount of livable space on Earth. The solution suggested is to build up-vertical cities.
- Sustainable architecture holds the key to an environmentally positive future.

6.   Recommendation

1. Total number of seats of B.Arch. /B.Tech Architecture programmes has not increased much during the last two decades and the near stability of the programme can be attributed to its association with government and aided institutions . Therefore, emphasis should be laid on the larger involvement of the public sector in Architecture programmes. Considering the present challenges posed by technical institutions in Kerala and the unfilled sanctioned capacity of seats, new colleges and courses in existing colleges may not be desirable.

2. Immediate steps will be taken to improve the quality of education offered by each institution as per the advice of an expert body and emerging trends and practices in Architectural programmes.

3. The qualification of teachers in engineering colleges will be strictly monitored. The presence of adequate number of qualified faculty will be ensured. This may improve the quality of teaching and learning in self-financing engineering colleges in the State.

4. In the current perspective of the state of affairs existing in the technical education sector of Kerala, it is inevitable to establish a strong regulatory mechanism to improve quality of teaching and learning process. It is also pertinent to increase the quality and capacity of student outcome from our engineering colleges at par with the competitive international standards.

Prepared by Kerala State Higher Education Council