

PERSPECTIVE PLAN FOR SETTING UP NEW ENGINEERING INSTITUTIONS

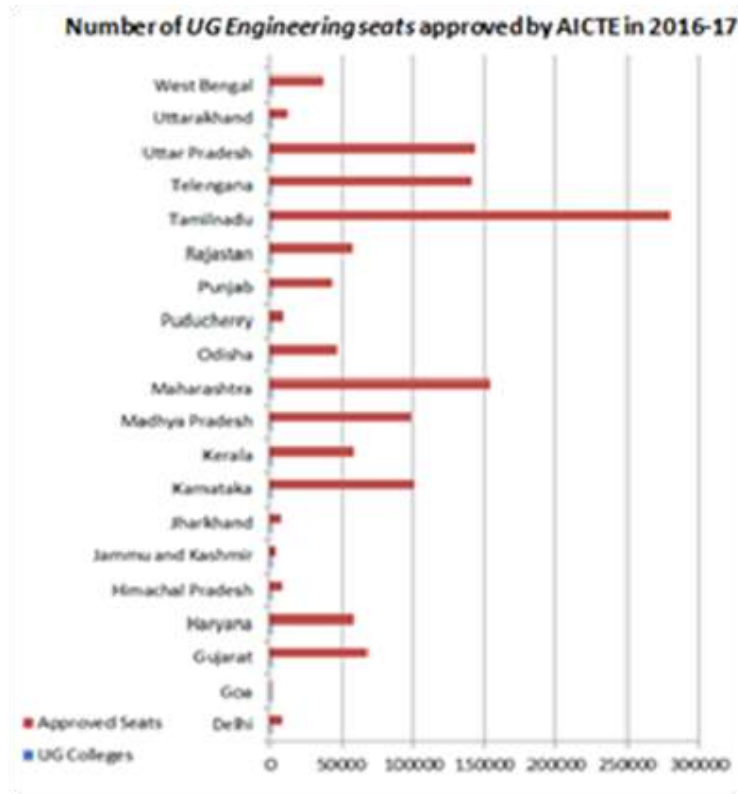
Introduction

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.

Background

It is a significant verdict in June 2012, aimed at improving the standard of engineering education in the State, a Division Bench of the Kerala High Court directed the State government and the All India Council for Technical Education (AICTE) to take steps to de-recognise and close down the colleges which have been continuously performing badly for the last three years. AICTE has announced to close down colleges with less than 30 percent admissions and has already recommended the closure of 800 colleges in the Country which did not have a minimum of 30 percent admissions for five consecutive years and lacked proper infrastructure.

In 2017, 122 private engineering colleges in the country have opted for progressive closure. It was reported that over 8 lakh Engineering seats had remained vacant in 2014-15. Studies have reported that over 80 percent of engineering graduates in the country are not deemed as employable. It is also reported that the majority of engineering graduates are seeking employment that are not related to engineering and having only lower prospects, the blame has to be put on the mushrooming of private engineering colleges.



The share of engineering enrolment to total higher education enrolment in India has increased from 3.42 to 15.55 per cent during this period. This led to the liberalisation of technical education which increased the number of engineering colleges in the State.

Present institutional share

Engineering education in the State was essentially public funded and provided, right through from the beginning and until 2001. Most of them were government owned although there existed a small number of government aided private engineering colleges which were also, by and large, subjected to the same enrolment policy as far as student admissions were concerned. There were 12 government-aided engineering colleges under the control of the Directorate of Technical Education (DTE) until 2001. Within two decades, the total number of engineering colleges in the State has been grown to a figure of 169. Apart from the 6 Central government engineering institutions, 21 are functioning under various State government departments, 4 are functioning directly under various State Universities and 7 under Kerala Veterinary and Animal Sciences University, the remaining major share of 119 comprised by the self- financing private colleges.

Status of Engineering Colleges in Kerala

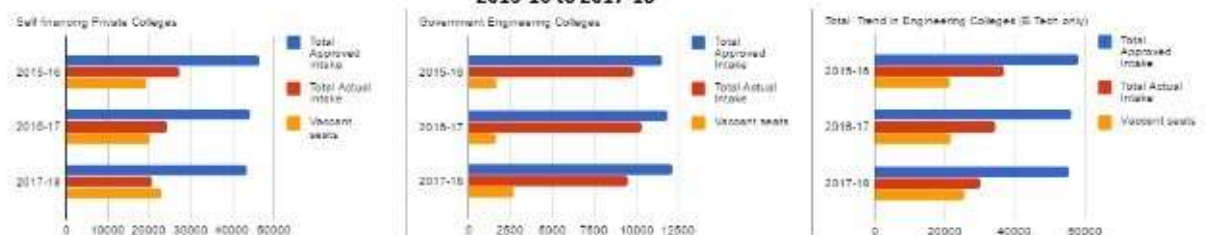
Category	Total Number
Central Govt. run	6
State Govt. run	12
Under state govt. departments	21
Under State Universities	4
Under Kerala Veterinary and Animal Sciences University	7
Private Self Financing Sector	119

In Kerala 25470 engineering seats are lying vacant in 2017-18 , as is evident from data obtained from APJ Abdul Kalam Technological University. Hence, **no new colleges and courses in existing colleges** may be allowed to start in 2018-19. Immediate steps may be taken to improve the quality of education offered by each institution.

Enrolment-Outturn scenario

Outturn rate show the pass percentage of engineering students enrolled in a year in various branches. Students enrolling for undergraduate engineering courses in the State show that outturn rates have actually come down significantly and a branch-wide analysis shows that there has been a significant reduction in the rate of outturn in the more popular branches. It is very evident that the expansion in capacity of undergraduate education has not led to improvement in output. This state of affairs have precipitated a serious public debate in the State, questioning the policy of liberalisation which it appears does not seem to have improved the quality to the desired extent, while at the same time appeared to have a deleterious effect on the quality of engineers produced within the State. Kerala has one of the largest numbers of seats for undergraduate courses in engineering, especially when it is related to its population.

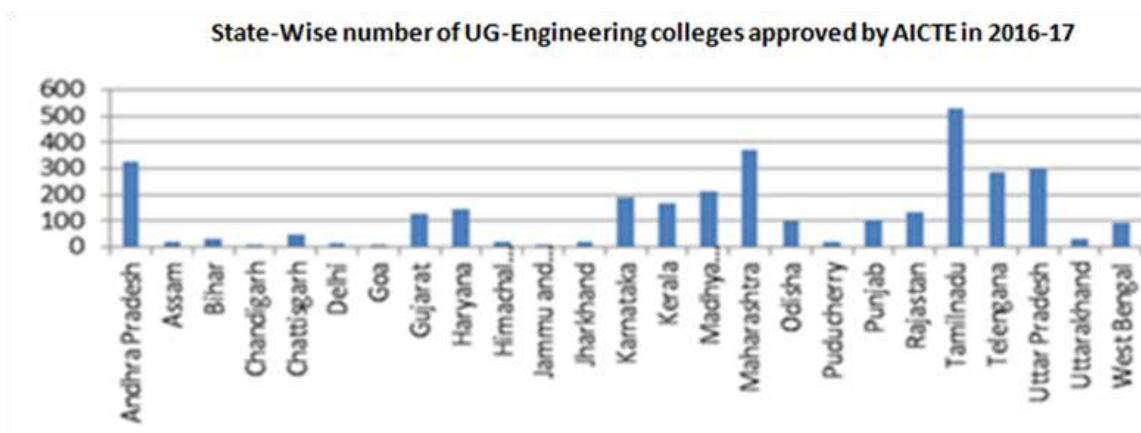
Fig.5. B.Tech. Seat status of sector-wise engineering colleges in Kerala during 2015-16 to 2017-18



While the total approved intake capacity of the engineering colleges in Kerala **in 2017-18** is 55665 the actual intake has come down to 30195 only, showing that approximately 25470 seats in various disciplines lies vacant in **2017-18**. This figure may expand in the coming years. Intake has increased at an annual average rate of 17 per cent, while the outturn has increased only at 15 per cent per annum.

Future Trend

It is evident from the current statistics obtained that, engineering colleges in the State are finding it difficult to fill all the seats in different branches sanctioned. With the current market-friendly policies and programmes, the technical education sector in India is drastically being transformed into a commercial business activity. Large number of engineering institutions mushroomed in almost every State in the Country during the last decade.



Therefore, emphasis should be laid on the larger involvement of the public sector in technical education and also in regulating the expansion of the private sector. Considering the present challenges of myriad of technical institutions in **private sector** in Kerala and enormous number of unfilled sanctioned capacity of seats, **new colleges and courses in existing colleges may not be approved for Kerala.**

Recommendations

Following points are suggested in the present context for further consideration and detailed evaluation, in the long term consideration of a perspective plan to enhance the quality of technical education.

1. The number of vacant seats in engineering colleges for B.Tech courses alone in the past 3 years have been increasing considerably. It shows an increase from 21158 in 2015-16 to 21672 in 2016-17 and in 2017-18, it reached an all-time high of 25470.

Seat Status of UG Courses (B Tech)

Year	Approved Intake	Actual Intake	Vacant seats	Vacant seats in Private Self-financing colleges
2015-16	58165	37007	21158	19468
2016-17	56139	34467	21672	20088
2017-18	55665	30195	25470	22819

Source: APJ Abdul Kalam Technological University

The vacant seats in private self-financing colleges have increased from 19468 in 2015-16 to 20088 in 2016-17 and in 2017-18 to 22819. Considering this declining trend in admission in engineering education in the State, **new colleges and courses in existing colleges** shall not be allowed to start in 2018-19.

2. Immediate steps will be taken to improve the quality of education offered by each institution as per the advice of an expert body. 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.
3. There shall be an evaluator mechanism on quality of teaching/learning, steps to improve the percentage of employability in fixed time-span, quality of teaching, institutional infrastructure, quality of learning, institute student's feedback etc.

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 draw a directional path so as to enable the overall improvement of 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. It is indisputably agreed that the trend of mushrooming of private engineering institutions in the state is not a promising phenomenon any more.

(Draft Prepared by Kerala State Higher Education Council)