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## TECHNICAL EDUCATION IN TAMIL NADU: A FUZZY APPROACH

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According to the editorial dated 2<sup>nd</sup> August 2003 in the *Economic and Political Weekly (EPW)*, in Tamilnadu alone over 21000 Engineering seats will remain unfilled this academic year and over 30 colleges in the private sector are in danger of being forced to close down. The editorial further states that in April 2003, the Supreme Court had directed the state government to create additional seats in medical and engineering to accommodate those meritorious students in the open category affected by the 69% reservation policy. According to the EPW there is an all too evident absence of coherent and comprehensive policy direction. In this paper we analyse the situation of Engineering Education in Tamil Nadu using Fuzzy Theory. Fuzzy Relational Maps (FRMs) are fuzzy signed directed bi-graphs with feedback.

In this paper we study the present scenario of Technical/ engineering education in the context of Government i.e. state controlled regulatory body, the All India Council for Technical Education (AICTE) versus the Managements, which runs the privately owned engineering institutions. The main attributes taken relative to the Government regulatory body i.e., AICTE are

1. No proper scrutiny of the infrastructure of the institution is assessed by the body of inspectors from AICTE.
2. Reports have often surfaced about how corruption rules the roost in this council and how bribes are taken in order to grant sanction for technical education institutions which are often run by politically or economically powerful

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3. No proper assessment about the teaching faculty is done by the experts who visit from AICTE (untrained, just engineering graduates are employed as teachers).
4. The cost spent by students is disproportionate to their job opportunities (This concept is never discussed or given importance by the AICTE).
5. Non-existence of Manpower Corporations/ Departments and no steps to give any information regarding any type of job opportunities.
6. There is no equity in the distribution opportunities in higher education by Government in general and Engineering education in particular.
7. The AICTE has blindly given sanction to new Engineering institutions has made both students and the owners of the institutions in highly erratic condition.

Several other points can also be taken under this head. The main attributes related with the persons who start the Engineering colleges:

1. Most of the persons who start the college are persons with least knowledge on Engineering education.
2. Their sole motive is profit. The institutional cost is minimal and personal cost is maximal leading to degeneration in quality maintenance.
3. They cheat the government/AICTE by showing false quality manpower to get sanction.
4. As they have spent substantial money as bribe to government/AICTE their main motive is to get back that cost from students or run the college with minimum or non-faculty that in turn has brought down the results drastically.
5. When results are poor the colleges do not get even enough students to run the institution. For instance, there are over two dozen engineering colleges in which the admission hovers at the single digit level.
6. We could also observe that government-run colleges function better than the private owned colleges. This is in sharp contrast to the lame argument which supports privatization on the basis that it creates better quality.

In Tamil Nadu alone there are around 239 Engineering colleges. This year over 30 percent of the colleges were not able to attract even the minimum number of students to run the institution. We have analyzed this problem using FRMs and we have

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