

**SOME CRITICAL ISSUES
RELATING TO ENGINEERING TEACHERS
IN THE DEVELOPMENT OF
TECHNICAL EDUCATION SYSTEM IN INDIA**

**THESIS SUBMITTED
IN FULFILMENT OF THE REQUIREMENT
OF THE DEGREE OF
DOCTOR OF PHILOSOPHY**

**BY
SUBHASH D. AWALE**



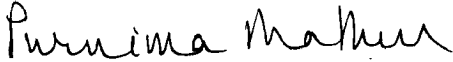
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CERTIFICATE

This is to certify that the thesis entitled "Some Critical Issues Relating to Engineering Teachers in the Development of Technical Education System in India" being submitted by Shri. Subhash D. Awale to the Indian Institute of Technology, New Delhi, for the award of the degree of Doctor of Philosophy, is a record of bonafide research work carried out by him.

Shri. Subhash D. Awale has worked under my guidance and supervision and has fulfilled the requirements for the submission of the thesis, which to my knowledge has reached the requisite standard.

The results contained in the thesis have not been submitted in part or full, to any other University/Institute for the award of any degree or diploma.


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ABBREVIATIONS

AICTE	-	All India Council for Technical Education
IISc	-	Indian Institute of Science (Bangalore)
IIT	-	Indian Institute of Technology
ISM	-	Indian School of Mines (Dhanbad)
NPE	-	National Policy on Education
POA	-	Programme of Action
QIP	-	Quality Improvement Programme
REC	-	Regional Engineering College
TTTI	-	Technical Teachers' Training Institute
TTTP	-	Technical Teachers Training Programme
WS	-	Weighted Score

ABSTRACT

Technical Education plays a very significant role in producing competent technical manpower needed for economic and societal development. The system of Technical Education in India has established beyond doubt, its impact through the scientific and technological advancements.

Articulating the National Policies, priorities and implementing them meaningfully through the development of Technical Education System, the engineering teachers have to perform multifarious functions as a teacher, researcher, reformer, practitioner, philosopher and a guide.

In the fast changing scenario in India, and the environment of new economic and industrial policies, the demand for qualified technical personnel is increasing and the expectations from the technical institutions have become manifold. For recognising such expectations and fulfilling them effectively, qualified, competent, dedicated and forward looking engineering teachers are a necessity of today and tomorrow.

The present study has focused its attention on the teachers in the degree awarding technical institutions approved by the All India Council for Technical Education. The main thrust of the study being the entire professional life cycle of the engineering teachers, an attempt has been made to study in depth the most critical issues pertaining to the engineering teaching profession. These issues include the interest and perceptions of engineering students about teaching profession, adequacy and effectiveness of the present selection procedures of teachers and the career growth and professional development of engineering teachers-the facilitators and barriers. The vacancy level in teaching positions in the degree level institutions and the necessity of long term measures to cope up with the situation are also examined.

The data emerged from the opinion-survey have been analysed and discussed in the respective chapters and the sections thereunder supported by tables, and bar charts. The summary of findings and recommendations in the context of the research questions framed in the first chapter and the objective of the study are presented in Chapter V with the help of conceptual models by way of future strategy.

The study has brought out very significant facts and aspects in the form of

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