CHAPTER 1

INTRODUCTION AND DESIGN OF THE STUDY

1.1 INTRODUCTION OF THE STUDY

Educational institutions are one of the important societal elements for every country and it has the responsibility of shaping every individual in the country by providing better knowledge and to make the individual a better human being and valuable human resource for building the nation. Indian educational system starts from preliminary to higher education. Higher education in our country has seen a tremendous growth in the recent past. Lot of educational institutions are started to provide education to our people in the areas of medicine, engineering and arts etc., India is one of the major educational hub in the world by providing better education to the people. India is well known and recognized as a knowledge source from our forefathers’ period itself.

Engineering education plays a vital role in every country for building the country’s economy. In India there are so many universities and colleges are providing engineering education. Teaching and Faculty are the inseparable elements ever. Better education is assured by the competent faculty if the faculty is having the freedom to handle the style of teaching that ensures better education to the students. There are several factors which may decide the education environment to become a better learning ground. The major factors are educational institution, teacher and student. The combined effort by educational environment and faculty decides a better education. Every university and colleges are having the responsibility to provide better working environment to facilitate learning for the student. Institutional
climate plays an important role in providing better learning environment by providing better infrastructure, having a good college policy, competent faculty, good leadership by management people and so on. The success of every educational institution lies on how well they manage their faculty members and at the same time the faculty members feeling towards their institution are also overemphasized. It is the responsibility of every educational institution to ensure that the internal customer, that is faculty members are satisfied and have good feeling towards their institution, is most important in the competitive world. Institutional climate helps every college to ensure better education by facilitating the teaching learning process and it helps to improve the faculty satisfaction and retention.

1.2 HISTORY OF ENGINEERING EDUCATION IN INDIA

Engineering education is not new to India; it was evidenced in the Epic period (1000BC) and Vedic period (Before 500 BC) where the education system was designed to develop various technical skills like carpentry, foundry, smithy, weaving, etc. The vocational skills had been given more importance during medieval India. Foundation of technical education was started in India and Europe in the same period, but in India the growth of technical education was slow and restrictive. After the independence, the status of Britishers was transformed from traders to colonizers and in order to gain complete knowledge of country’s topography through physical survey, they established a survey school in Madras (Chennai) in 1794. The Bristishers had started the first technical education to train the Indian people in land survey to assist British surveyors. The formal technical education has grown manifold only after the independence and still it is growing.

The first engineering college was started in Uttar Pradesh in the year 1847 after that three engineering colleges were established in the places namely Sibpur, Poona and Guindy. The educational system in the three
colleges has been followed in the similar way and offered courses in civil engineering up to 1880. After 1880 the demand for mechanical and electrical courses was increased, the three engineering colleges were started apprenticeship classes for mechanical and electrical subjects. In 1887 Victoria Jubilee Technical Institute was started in Bombay with the objective of training licentiates in Electrical, Mechanical and Textile Engineering.

In 1915, Indian Institute of Science started certificate and associateship classes for Electrical Engineering, later its being considered equivalent to a degree. The pros and cons of the introduction of degree courses in mechanical and electrical engineering was debated in the Calcutta University Commission because of the recommendations of the Indian Industrial Commission (1915) against the introduction of degree courses in electrical engineering. The report says electrical manufacturing was not started in India, the scope for employment is limited to simple repair work, to take charge of the running of electrical machinery, and to manage and control hydroelectric and steam-operated stations. The men required for these three classes of work will be provided by the foregoing proposals for the training of the various grades required in mechanical engineering. They will have to acquire in addition, special experience in electrical matters, but, till this branch of engineering is developed on the constructional site, and the manufacture of electrical machinery taken in hand, the managers of electrical undertakings must train their own men, making such use as they can of the special facilities offered for instruction at the engineering colleges and the Indian Institute of Science."

University of Banaras had the credit of starting first degree classes in mechanical engineering, electrical engineering and metallurgy in 1917. After fifteen year later, engineering colleges in Sibpur, Poona and Guindy was started degree courses in mechanical engineering, electrical engineering
and metallurgy at the same time the three places in the period from 1931 to 1940. Sarkar committee was appointed in 1945 to provide suggest options for advanced technical education in India. This committee recommended to establish technical institutes based on the Massachusetts Institute of Technology in the four regions viz., Kharagpur (1950), Bombay (1958), Kanpur (1959), Madras (1960) and Delhi (1961). In the same year All India Council for Technical Education was set up to oversee all technical education (Diploma, Degree and Post-graduate) in India. The very old: Roorkee Engineering College (1848) was elevated as Indian Institute of Technology in the year 2002.

Government of India has started many more institutes of technology in order to meet the increasing demand for qualitative engineering personnel in the global market and to maintain regional balance between various states in addition to the above five institutes the following technology institutes were also established.

1. Indian Institute of Technology, Bhubaneswar.
2. Indian Institute of Technology, Gandhi Nagar.
3. Indian Institute of Technology, Guwahati.
4. Indian Institute of Technology, Hyderabad.
5. Indian Institute of Technology, Indore.
6. Indian Institute of Technology, Mandi.
8. Indian Institute of Technology, Rajasthan.
9. Indian Institute of Technology, Roorkee,
10. Indian Institute of Technology, Ropar.
12. Indian School of Mines, Dhamabad.

Government of India in association with State Governments there was 15 Regional Engineering colleges were established based on the recommendations of the Engineering personnel committee (1995). In 1959 First Regional Engineering College was established in Andhra Pradesh. Government of India renamed all the Regional Engineering Colleges as National Institutes of Technology (NIT) in 2002. The list of current NITs in India as follows:

1. Dr.B.R.Ambedkar National Institute of Technology, Jalandhar.
2. S.V. National Institute of Technology, Surat.
15. National Institute of Technology, Silchar.

1.3 ENGINEERING EDUCATION SCENARIO IN TAMIL NADU

Engineering education in Tamil Nadu is regulated by Anna University, a state university formed in Chennai in the year 1978. All the government and self-financing colleges of Tamil Nadu are affiliated to the university. Number of engineering colleges in this state is increasing in many folds, in 2005, Tamil Nadu had only 211 colleges affiliated to Anna University, but from the year 2015, the number has more than doubled to 495. That’s a huge increase by 135% in ten years. The majority of this spurt of colleges was happened over the period of two years from 2008 and 2009.

A total of 163 engineering colleges were started in this two year alone, and many of these engineering colleges were started in few locations in Tamil Nadu, that was created a geographical clusters especially Coimbatore and Chennai are clearly found a large educational hubs for the state of Tamil

Nadu. Other small educational hubs were found in the places like Erode, Salem, Trichy and Kanyakumari. There was a large increase in the number of deemed and state universities in the same two years period of time.

1.4 IMPORTANCE OF THE STUDY

Understanding the faculty members’ perception towards institutional climate factors is one of the important research areas for the past so many decades. Educational institutional are turned their focus towards the study of faculty perceptions for having the better understanding about their institution and it helps the institutional to have better position in the educational industry in the long run.

Institutional climate study is one of the important study for so many years and it going to be the essential and continual research area in the future also. As institutional climate may have direct impact on job satisfaction, faculty retention, faculty commitment etc., by having a regular study on institutional climate enables every university and colleges to ensure their strong presence in the educational market

1.5 STATEMENT OF THE PROBLEM

Engineering education in India has seen tremendous growth over the past decade, both in number of students and number of colleges. The recent growth in Indian engineering education has been overwhelmingly due to privately funded educational institutions rather than publicly funded ones.

Nowadays, India has emerged as the single largest pool of engineering talent among the emerging countries capable of taking on this kind of work more than Russia and China combined.
With the rapid increase in the number of engineering colleges, the number of available qualified and experienced teachers is not adequate to meet the demand. Attracting and retaining qualified and competent faculty members is required a important task for all engineering colleges, understanding faculty perception towards engineering colleges is must for every engineering colleges for their institutional development. To understand the faculty member’s perception towards institutional climate is important to undergo a research.

1.6 SCOPE OF RESEARCH

The study will find out the perceptions of faculty members about their institutional climate and their level of agreements towards various factors like job satisfaction, faculty commitment, work life balance, motivation, employee engagement and faculty turnover intentions. This study will help the institutions to have better understanding about their institutional climate and to know the other factors influencing their institutional climate. This will help them to bring out different strategic decisions towards to improve their institutional climate and to retain competent faculty members for the betterment of both institution and faculty member.

1.7 OBJECTIVES OF THE STUDY

The present study focus on studying the faculty members’ perception towards their Institutional Climate and analyzing the impact of institutional climate on selected HR factors with special reference to faculty members working in engineering colleges in Tamil Nadu. In order to find out the perception and analyze the impact of institutional climate on HR factors the following objectives have been framed,
• To study the faculty perception towards institutional climate in engineering colleges.

• To analyze the impact of institutional climate on faculty job satisfaction among engineering colleges.

• To analyze the impact of institutional climate on faculty job commitment among engineering colleges.

• To analyze the impact of institutional climate on work life balance among engineering colleges.

• To analyze the impact of institutional climate on employee engagement among engineering colleges.

• To analyze the impact of institutional climate on faculty turnover intention among engineering college faculty members.

1.8 SCOPE AND SIGNIFICANCE OF THE STUDY

The study will find out the perceptions of faculty members about their institutional climate and their level of agreements towards various factors like job satisfaction, faculty commitment, work life balance, motivation, employee engagement and faculty turnover intentions. This study will help the institutions to have better understanding about their institutional climate and to know the other factors influencing their institutional climate. This will help them to bring out different strategic decisions towards to improve their institutional climate and to retain competent faculty members for the betterment of both institution and faculty member.

1.9 LIMITATIONS OF THE STUDY

The study faces the following limitations:
1. The survey was conducted only in five zones of Anna University, Chennai. Colleges of Tamil Nadu state. Hence, the results arrived from the study may or may not be applicable to other geographical areas.

2. Out of the total population, only five hundred and twenty responses from faculty members were selected for getting first-hand information. In view of time and monetary constraints, it was not possible to contact more than the selected number of responses from faculty members.

3. The findings and results are based upon responses from faculty members only.

1.10 CHAPTER SCHEME

The framework of this research work includes five chapters. A brief outline of each of them is given below:

Chapter 1 - Introduction and design of the study, includes Introduction, importance of the study, Statement of the problem, Objectives of the study, Methodology used, Scope and Limitations of the study.

Chapter 2 – Review of Literature presents review of related literature available in this field. The review of literature lists the researches done by the previous researchers in India and other countries.

Chapter 3 – Conceptual frame work of the study. It deals with institutional climate assessment model and it also explain about the factors of HR and other related concepts.

Chapter 4 – Data analysis and Interpretation, it deals with the analysis of faculty perception towards institutional climate and the association
between demographic variables and institutional climate. Also the impact of institutional climate on job satisfaction, faculty commitment, work life balance, Motivation, Employee engagement and Faculty turnover intentions.

Chapter 5 – Summary of findings, suggestions and conclusion-highlights the summary of the findings and suggestions to improve the existing Institutional Climate of engineering colleges of Tamil Nadu.