



# Ethical Responsibility of Engineers, Managers and Their Teachers

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## Introduction:

At the outset I would like to express my sincere gratitude to the organizers of this National Webinar on Ethics in Indian Higher Education, for providing an opportunity to VTU, which is named after Sir M Visvesvaraya, to participate in this National Webinar on Ethics in Indian Higher Education. Here my role is to share my thoughts and speak on Ethical responsibility of Engineers, Managers and their teachers.

When we have a look at the Education system which was in practice in our ancient Gurukulas, we realize that the Gurukula was able to awaken wisdom in pupils under helm and also to liberate them from darkness to light. The Gurukulas used to inculcate spirit of equality, social awareness and practical efficiency in the pupils. That is how our

education system was leading towards highest level of knowledge & skills along with wisdom to practice these in the right way. In the present circumstances if we want to have education on ethics, professional ethics or ethics in corporate world or in educational institutions and universities in India, we need to inculcate or imbibe new system in our education itself, as a remedial measure or corrective measure, to have relatively better understanding, better society and better citizens.

## Presentation & Discussion:

When we compare our ancient Gurukula Education System, it was about inducing latent capacities and potentialities in the pupil concerned and it was treated as a process of biological and spiritual development of a pupil and not a mere mechanical process of imparting knowledge and skills without

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adding wisdom. Now, when we are talking about promoting student centric education system, holistic education system, through our new National Education Policy – 2020, we are trying to bring back the same kind of a system which was there in our education system in the past.

Somehow in the colonial period, it became one way and the teachers were made to teach the students mainly by providing information with the help of text books and notes. They never had discussions or debates with the students, no hands on experiments, no holistic education and the teaching through modules or through nature or by experiential learning was missing. Experimental teaching is there in some of the specialization and we do have hands on training in architecture, engineering and medical education and the like but they are limited in nature and do not contain wise usage of the knowledge & skills. That is how the concept of Gurukula education is missing under the present circumstances.

With the advent of revolution in the field of Information Technology, the scope of providing information to the students on any particular subject, is expanded. Other than Text Books and Notes, newer technologies and information are available to better understanding the subject under consideration. We need to facilitate students in term of gaining knowledge through very large content of information available. The student can be guided in terms of how to get the required information from the available very large e-content to him/her on the finger tips and what is right and what is wrong.

Our education of ethics can be better explained by considering the quotes of Swami

Vivekananda, who said “All expansions is life, all contractions is death. Love is life, and hatred is death.” According to him Education is meant for spiritual development and enrichment of man. It begins in the childhood and continues throughout life. Thus he spoke of man-making education which fills man with new spirit of inspiration, heroism and dynamic action.

Other very useful quote which relates to ethics is the quote of Nicholas Sparks, who says, “Always listen to your heart, because even though it is on your left side, it is always right.” If we closely look at these two statement of the great leaders Swamy Vivekananka and Nicholas Sparks, we will be able to do something in terms of ethics or professional ethics or moral values or code of conducts etc, in the new education system.

We know that, every professional bodies such as IEEE or Institution of Engineers, American Society for Mechanical Engineers (ASME) and others, have prescribed their own values, code of conducts or norms. Even in our education system in universities and colleges or in organizations and companies, we have code of conducts and rules, and we relate these rules and conducts to the employees to understand and follow in addition to salary and incentives to be given in the form of increments or promotions or bonus etc.

Monetary incentives are all temporary in nature. They evaporate once you give an increment for an employee expecting growth or better performances, it is for a very limited period. But when you create some inspiration in them and enhance their moral values they go very long way in achieving the goals set

by the organization or system where they are serving.

Speaking on the topic Ethical responsibility of Engineers, especially Civil Engineers, there is a saying “If a doctor commits a mistake, it is buried or becomes mortal, but if an engineer commits a mistake it become immortal.” It stands as a witness in the eyes of people saying that this particular structure was built by such and such engineer and sometimes it becomes a part of history also. As engineering professionals, we are the nation builders. So we need to review and verify ourselves, our actions with the newer technologies. Are we thinking about the welfare of the society and Environment? Good cause is needed in every research also; the pandemic has taught us new lessons, we need to be very decisive and careful in our works and actions.

If we look back how we have learnt professional ethics, it can be seen that we tried to attend seminars, read text books, tried to present case studies. There are n’ number of people across the globe to see as role models for us. If we look at four or five role models of our own country, Swami Vivekananda, Mahatma Gandhi, Dr. S. Radhakrishnan, Sir M.Visvesvaraya, Dr. A P J Abdul Kalam, lot of ethical values we can learn. From Nature, how birds fly together, how bees live together, how the crows share their food; if they find something special how they call others from their community, all these can be learnt from the Nature.

Our role models have set certain bench marks or very high standards. They never deviated from their percepts and practices. They have set a very high bench mark of

learning ethics. “Work is Worship” is the mantra they have taught us. If we can follow even 90% of their preaching and practice, that will become an excellent goal for ethical practice. How they used the available facilities, how they used their offices, how they thought about the projects, programs or nation building activities, how they preached and never deviated from their practices. If we can look very carefully at the practices of these people and also learn from the Nature, we will be able to solve problems. It will help in the successful Implementation of new Education policy in our education system and upgrade our education system.

Let us take good points and go ahead and try to create a quality education system which will bring in holistic more capable and responsible citizens to this country. May be we will be able challenge the globe in terms of what educational values we have, not only in terms of engineering, medical, science and technology, space etc. but also in terms of spiritual values and ethics. We can move forward and create a global standard system, where in all of us can live very peacefully.

### **Conclusion:**

There are certain Code of Professional Ethics, which can be considered:

- Adhere to a responsible pattern of conduct.
- **M**anage your private affairs in a manner consistent with the dignity of the profession
- **B**e a continuous learner through study and research.
- **E**xpress free and frank opinion.
- **R**efrain from inciting one against other.

- **Speak respectfully**, treat everybody as equal partners.
- **Provide inspirational and motivational value** based academic and executive leadership.
- **Conduct yourself with transparency, fairness, honesty, high degree of ethics and decision making** that is in the best interest of the society or organization.
- **Endeavour to promote work culture and ethics** that brings about the quality professionalism, satisfaction and service to the nation and society.
- **Refrain from allowing considerations of caste, creed, religion, race, gender or sex** in their professional endeavour.

VTU has taken steps to implement on these points. Universal Human Values and Ethical practices have become part of the students' induction program under VTU affiliated colleges. We hold three weeks student induction program as soon as the

student enters into the portals of our affiliated engineering and architecture colleges. As per the directions of AICTE, we are trying to make two credit courses compulsory in this topic for our students. During the period of pandemic we trained almost 2000 teachers in Human Values and Professional Ethics, through online webinars.

Also we have established Universal Human Value Cell at our Regional Centre at Bengaluru, which deals with professional ethics and other related topics. This Cell co-ordinates with each affiliated college to deal with such issues, so that professional ethics and human values percolate in students community. The teacher can change the attitude of students, institution and of themselves, towards life. I strongly believe, especially teachers in engineering education system should make our students to come to the institute with smile and also go with smile.



***“The Best way to cheer yourself up,  
Is to cheer up someone else.”***

***“You make others Happy,  
Then you will be happy.”***