Report of the

Committee to Suggest Measures to Regulate the Standards of Education Being Imparted through Distance Mode

Under the Chairmanship of

Prof. N R Madhava Menon

Ministry of Human Resource Development
Government of India
Shastri Bhawan New Delhi 110001

Letter of Presentation

Hon'ble Minister,

I have great pleasure in forwarding to you the report of the "Committee to Suggest Measures to Regulate the Education Being Imparted Through Distance Mode in the Country" (Distance Education Reform Committee) appointed by the Ministry under my chairmanship vide Office Memorandum No. F.No. 6-20/2010-DL dated 5th August, 2010. It took a little longer than expected because of the controversial nature of some of the issues involved, the non-availability of complete data on the field situation, the anxiety of the Committee to have consultation with all stakeholders and the changing nature of distance learning all over the world under the influence of technology, globalization and ever-increasing demand for higher education. Nonetheless, we hope we could respond adequately to the terms of reference and suggest ways to move forward for enhancing the contribution of ODL to GER without compromising on the quality of education imparted.

In the absence of an overarching regulatory authority for higher education and research as envisaged by the proposed NCHER Bill, it was difficult to reconcile the conflicting jurisdictions of different bodies set up at different periods of time and context in respect of higher education in general and distance education in particular. We do need an effective new legal framework for distance education at least till the NCHER or a similar authority is put in place to facilitate growth with quality control. A Bill appended with this report can perhaps address the situation for the time being which later can be subsumed by NCHER as and when it is set up.

On behalf of the members of the Committee and on my own behalf, we would like to record our thanks to the Government of India for having provided us an opportunity to serve an important national cause which is likely to influence significantly the future of higher education in India. I will be failing in my duty if I do not acknowledge the excellent back up support extended to the Committee by the secretariat of the Distance Education Council and particularly Mr. R.R. Rausaria and his team. Mr. Anant Kumar Singh, Joint Secretary in the Ministry, saw through the preparation of the report and coordinated its meetings and deliberations.

(N.R. Madhava Menon)

To,

Shri Kapil Sibal
Minister of Human Resource Development
Government of India
Ministry of Human Resource Development
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CHAPTER 1: INTRODUCTION

1.1 The Committee and its Mandate:

The Ministry of Human Resource Development (MHRD) vide its Office Memorandum No. F.6-20/2010-DL dated 5th August, 2010 constituted a Committee (Annexure I) consisting of the following members:

(i)	Prof. N.R. Madhava Menon	-	Chairman
(ii)	Chairman/Secretary of the UGC	-	Member
(iii)	Chairman, AICTE	-	Member
(iv)	Chairman, DEC	-	Member
(v)	Shri Lalit Bhasin, Sr. Advocate	-	Member
(vi)	Shri Ravindra Srivastava, Sr. Advocate	-	Member
(vii)	Shri Anant Kumar Singh, Joint[1] Secretary, Ministry of Human Resource Development	-	Convener

The Terms of Reference of the Committee are as under:-

- To harmonize the legal position in respect of distance education programmes in various disciplines, as they concern the UGC Act, AICTE Act and IGNOU Act
- To recommend framework for approval of Distance Education Courses/institutions within functional jurisdiction of UGC, AICTE and DEC in dealing with the subject matters of distance education
- To recommend outcome benchmarks for distance education systems which will facilitate equivalence with conventional modes
- To recommend guidelines for processing of the approval of technical programmes through distance and mixed mode
- To suggest ways towards enhanced contribution of Distance Education to reach the targeted Gross Enrolment Ratio (GER) of 30% by 2020

1.2 Meetings and Consultations:

The Committee met on six occasions between September 2010 and April 2011 and had detailed discussion with the three principal regulators – UGC, DEC and AICTE in the context of the Terms of Reference. The Committee in its first meeting decided to elicit views of UGC, AICTE and DEC in respect of distance education to harmonize relationship among them and also suggested collection of

[1] *On transfer of Dr. D.K. Paliwal*

the enrolment and other data regarding distance education available with DEC. The Committee also decided to get details about the number of distance education institutions, the disciplines in which programmes and courses are offered and enrolment in them from the State / UT Governments. The Committee in its second meeting reviewed the feedback received from UGC, AICTE and DEC. The views of UGC, AICTE and DEC are enclosed as Annexures II, III and IV respectively.

It was felt that views of other stake holders such as Private Service Providers, State Open Universities and Dual Mode Universities should also be obtained to understand the functionality of distance education system. For this purpose, three consultative meetings with the institutions imparting ODL both in the Government sector as well as in the Private sector and representatives of industries were organized in order to make the recommendations more realistic and relevant to the system.

The first consultation was held at Bangalore on 24.1.2011 with managements of private sector ODL institutions including private universities and deemed-to-be universities. It focused on three issues, namely, (a) Outcome Benchmarks for ODL systems for deciding equivalence with conventional mode in respect of quality assessment; (b) Guidelines for processing of approval of technical programmes through distance and mixed mode; and (c) Regulatory framework for distance education courses/institutions for enhancing share of ODL in GER in Higher Education. The day long discussion was attended by over 50 delegates from as many private ODL institutions and many constructive suggestions were given to address the problems and challenges. The minutes of the Consultative Meeting are annexed to this report as Annexure V.

The second consultation with State Open Universities and conventional universities running ODL programmes was held in Delhi on 26.2.2011 which was attended by over 80 participants including Vice-Chancellors of State Open Universities and Directors of ODL Institutions of conventional universities. Again the issues in focus remained the same though the problems identified and solutions recommended varied. The minutes of the second Consultative Meeting are annexed to this report as Annexure VI.

The third consultation was held with the representatives of industry on 7th April 2011 in Delhi to explore the expectations of the industry from universities in general and open universities in particular in preparing the students for employment and their experience with the products of these universities as users. The minutes are annexed as Annexure-VII. These consultative meetings were devoted to analyze the issues and challenges in the context of the views and comments made by the Regulators, on the one hand, and by the service providers and recipients of these services on the other.

The Committee also considered report/recommendations of the two-day Conference of the Vice Chancellors of the Central and State Universities organized by the University Grants Commission on 25th & 26th March, 2011 at Vigyan

Bhawan, New Delhi. Eight groups were constituted to deliberate separately and simultaneously on eight different contemporary and burning topics. Group number VI deliberated on "Alternative modes of delivery of Higher education: Open Distance Learning". Recommendations of all eight groups were discussed in the plenary session and finalized. Recommendations of this group as finalized in the plenary session are attached as Annexure -VIII.

Several drafts were prepared and circulated with assistance from experienced ODL system personnel from the DEC and IGNOU. Detailed and intense discussions were held in the Committee. Thereafter, a consensus report has been finalized which is self-explanatory. Recommendations are made keeping in mind the concerns stated in the Memorandum T.O.R. issued by the Department of Higher Education and the situation prevailing on the ground as revealed to the Committee.

CHAPTER 2: OPEN AND DISTANCE LEARNING (ODL) IN HIGHER EDUCATION: STATUS, SYSTEMS AND CONTROLS

2.1 Introduction

In this chapter, we propose to look at the historical development of ODL in the context of expansion and diversification of higher education in the last six decades. In order to understand the potential of ODL institutions to take a greater share in the GER, it is necessary to take stock of its present status in the University system in terms of quality, standards and regulatory controls. A brief overview of these and related aspects are presented in this chapter based on available data with the Distance Education Council.

ODL is a term which accepts the philosophy of "openness" and uses the "distance mode" of learning. It is "open" in the sense that it removes whatever constraints exist in face-to-face conventional classroom method of teaching and learning. Flexibility achieved through 'Openness' expands opportunities for many more learners aspiring for higher education but not having access to it through the conventional mode. Scaling it up with equal quality is what places Open Universities on a different pedestal as compared to conventional Universities. Distance learning where the Teacher and the learner are separated by distance and in time, also involves e-learning, open learning, flexible learning, on-line learning, resource-based learning, technology-mediated learning etc.

2.2 Growth of Higher Education

There has been phenomenal growth of higher education in India since independence. There were only 20 Universities and 500 colleges at the time of independence. These numbers have increased to 24 times in the case of the Universities, 52 times in the case of Colleges and 49 times in terms of student enrolment in the formal system of higher education in comparison to the figures at the time of independence[2].

As on 31.03.2009, the number of Universities had gone up to 428 universities including 40 Central, 234 State, 21 State Private, 128 Deemed to be Universities, five Institutions of National Importance established under State Legislation and the number of colleges to 25,951. There were about 7361 colleges of Engineering and Technology offering programmes at Diploma, Bachelor, Postgraduate, and PhD levels. During the year 2008-09, total enrolment in all courses (general as well as technical & professional) at all levels (graduation, post

[2] *(Source: UGC Annual Report 2008-09)*

graduation, doctoral etc.) in conventional stream was 136.42 lakhs of which 12.86 lakhs was in technical programmes[3].

Out of the total enrolment (136.42 lakhs) of students in conventional system, 43% students were in the faculty of Arts, followed by 19% in Science and 18% in Commerce, thus constituting about 80% enrolment in just three faculties. The remaining 20% enrolment had been in professional courses indicating the highest percentage in Engineering approximately 13%, followed by Medical 2.2%, Law, etc.

In addition, there are about 36 lakhs learners in Open and Distance Learning (ODL) system[4]. ODL constitutes about 21.9% of total enrolment in the conventional system. Enrolment in technical & professional courses in the ODL system is less than 10 percent. In Distance Education Institutions (DEIs) it is in the range of 6 – 10 percent and in State Open Universities (SOUs) it is in the range of 10 -15 percent.

About 87% of the total enrolled students in conventional system are at graduate level. In the ODL system also the enrolment is highest in undergraduate programmes, but it is less than that in the conventional system. In case of SOUs, it is 49.3 percent and that for DEIs is in the range 45-71%. Open Universities have higher enrolments in Certificate/Diploma programmes e.g. IGNOU – 34.99%, YCMOU – 34.84% and BAOU – 71.95%. About 90.79% of all the under-graduate students (119.08 lakhs) in conventional system had been in the affiliated colleges while the remaining in university departments and their constituent colleges.

The percentage of students enrolled for Post Graduate general programme in conventional system is 10.92 percent, while the same in the ODL system is in the range 15-20% in SOUs and around 30% in DEIs. About 72.74% of all post-graduate students are in the affiliated colleges while the remaining in University departments and their constituent colleges.

A very small proportion i.e. 0.70% of the total number of students in conventional system, are enrolled for research. Out of the total research students (0.83 lakh), 86% are in the Universities. There were 954 Ph.D students in Open Universities prior to UGC notification not allowing research programme through distance mode. IGNOU has registered 618 M.Phil, and Ph.D students (580-Ph.D. and 38- M.Phil students) up to January 2011 session. About 100 M.Phil and Ph.D students have been admitted in July 2011 session. IGNOU claims to be conducting research as rigorously as is being done in the conventional system.

Total enrolment of women students in conventional system is 56.49 lakhs, constituting 41.4%. Overall percentage of women enrolled in Open Universities is

[3] *(Source: AICTE website accessed on----------)*
[4] *(Source: DEC Database)*

about 40% while it is around 45% in dual mode institutions (DEIs). Percentage of rural students enrolled in Open Universities is about 52%. SC enrolment is approximately 13.6% in SOUs and around 20% in DEIs.

Though the Indian higher education system has grown in size, it is unable to accommodate the increasing number of aspirants to higher education. The national efforts to democratize the socio-economic services including education provided by various levels of governments and the growing realization among the masses about the economic value of education have for long been exerting considerable pressure for expansion of higher education system in our country. But the resources do not permit scaling up of the needed infrastructure and human resources to make available the conventional higher educational facilities to the aspiring learners.

It is also worth mentioning here that the total number of students who passed out the Senior Secondary level i.e. 10+2 exam in the year 2006-07, 2007-08 and 2008-09 were 65,66,178; 71,35,304 and 79,85,174 respectively. If all of them joined the higher education system, the total enrolment at graduate level only should have been about 217 lakhs, but on the contrary, it was only about 135 lakhs. The GER was approximately 12% in the year 2008-09 which was only one-fourth of the average GER of the developed countries (54.6%), while the GER of even the developing countries in transition was about 36.5%[5].

In order to accommodate the increasing aspirants of higher education and to provide skilled workforce to the world market, it has become imperative to raise the GER to at least 30% by the year 2020. It means approximately addition of 10,510 technical institutions, 15,530 colleges and 521 universities. This would require about Rs.9,50,000 crore.

Availability of such huge amount is the real challenge before the higher education sector today. Therefore, there is an urgent need to look for an alternative to the conventional system. Such a perceived need has given rise to the growth and acceptability of distance education in India which is less expensive and flexible enough to cater to the needs of educationally deprived groups. Different studies conducted for analyses of cost incurred show that the distance education system can offer educational programmes of an acceptable quality at a cost which is about one-fifth of the cost incurred in the conventional education system.

2.3 Open Distance Learning: Nature and Objectives

The Open Distance Learning (ODL) system, also known as Distance Education (DE) system, has evolved as one of the effective modes of education and training. The development of ODL system, from the stage of print material

[5] *(Source: UGC Annual Report 2008-09)*

oriented correspondence education to the stage of self-instructional packages with an integrated multi-media approach, and incorporation of interactive communication technologies, leading towards building of virtual learning institutions is significant. The application of new interactive communication technologies in providing flexible and cost-effective programmes through distance mode is now widely recognized and appreciated. Modern satellite and communication technologies, internet and other electronic media are expanding at an unprecedented rate. With the gradual and effective adoption and percolation to distant places and people, communication technology is continuously changing the face and pace of open and distance education system in the country. The growth and access to ICT is bound to bring revolutionary changes in higher education, particularly, in the quality of content and student support services along with enhanced scope and reach of open and distance learning system across the country.

In a competitive environment, institutions can only attract learners/students if their image projects a commitment and a reputation to offer the best that is available, is a well accepted fact. The Open and Distance Learning system is now growing faster compared to the conventional system. In a new and innovative system like open and distance education, quality assurance, therefore, becomes absolutely essential to create a sense of credibility among learners. The effective management of learner support system at a distance poses considerable challenges in comparison to conventional system. It requires the distance education institutions to establish robust system for maintaining effective mechanisms to monitor quality for various processes such as planning of programme, development of study material and multi-media packages, incorporation of R&D for offering better educational products and services.

The major objectives of distance education system are:

- To provide a system of learner-centred self-paced learning;
- To provide a flexible, diversified and open system of education;
- To develop wider access to higher education for persons of all ages, particularly for working persons and for economically or otherwise handicapped persons including those residing in remote areas;
- To provide opportunity for up-gradation of skills and qualifications; and
- To develop education as a lifelong activity so that the individual can replenish his or her knowledge in an existing discipline or can acquire knowledge in new areas.

The major characteristics of the distance education system are its high productivity, greater flexibility and above all its capacity to respond to varying demands.

2.4 Development of ODL in India

Realizing the important role education plays in the overall national development, a number of Education Commissions and Committees were set up from time to time to look into the problems of education and to suggest solutions. On the suggestion of Central Advisory Board of Education (CABE), the Government of India constituted an Expert Committee in 1961 headed by Dr. D.S. Kothari, to look into the suitability of Correspondence Courses for expanding educational opportunities. The Committee recommended introduction of Correspondence Courses to expand and equalize the educational opportunities. Thus, ODL in India was introduced by Delhi University in 1962 through the School of Correspondence Courses and Continuing Education to enable those, who had the inclination and aptitude to acquire further knowledge and improve their professional competence. Subsequently in 1968, Correspondence Courses were started by Punjabi University and University of Rajasthan. Meerut and Mysore University started these courses in 1969. Slowly, many Universities followed suit. Rapid expansion of the ODL courses took place during the seventies when 19 more universities started Institutions/Directorates of Correspondence Courses.

In the eighties, the distance education system expanded further. Not only did more and more universities started opening correspondence education Directorates, but the beginning of establishing single mode Open Universities also began in this decade. Dr. B.R. Ambedkar Open University, Hyderabad was established in 1982 by the State of Andhra Pradesh. It was followed by the setting up of Indira Gandhi National Open University by the Government of India in 1985 by an Act of the Parliament. The establishment of IGNOU is considered to be a landmark development in the field of distance education in the country. The growth of distance education has been exponential over the last four decades, beginning in 1962, in our country. As on 01.03.2010 in addition to IGNOU, 13 SOUs and about 200 Distance Education Institutions are offering programmes in diverse disciplines. The jurisdiction of State Open Universities offering distance mode programmes is limited to the respective States as provided in their Acts. The growth of distance education institutions is given in Table 2.1[6]. Statistics relating to 2009-10 has been taken from the unpublished records of DEC. During the course of deliberations, the Committee was also informed by DEC that it has statistics only of those institutions, which have chosen to provide relevant information to the Council. There are institutions which are offering ODL programmes but have neither sought recognition from DEC nor have shared any information.

[6] *(Source: DEC Database, 2007)*

Table 2.1: Institutional Growth of Distance Education:

Year	Open Universities	Distance Education Institutions	Total Distance Teaching Institutions
1962	-	1	1
1970-71	-	17	17
1975-76	-	22	22
1980-81	1	33	34
1985-86	2	38	40
1990-91	5	46	51
1995-96	7	50	57
2000-01	9	70	79
2005-06	13	104	117
2009-10	14	186	200

2.5 Growth of Student Enrolment in ODL

Delhi University started correspondence programme in 1962 with an enrolment of 1,112. During the initial years, the student enrolment increased slowly from 1,112 students in 1962 to 29,500 students in 1970-71 (Source: UGC Annual Report 1990). It substantially increased during the next two decades to 1,66,428 students in 1980-81 and 5,92,814 in 1990-91 (Source: Manjulika and Reddy, 1996). At the turn of the century, in 2000-01, there were 13,78,000 students studying through distance mode which has further gone up to 18,33,524 in 2005-06. The student enrolment further rose to 3636744 in the year 2009-10. Distribution of enrolment in Open Universities (OUs) and DEIs is given in Table2.2[7].

Table 2.2: Growth of Enrolment in Open Universities (OU) and DEIs:

S.No.	Year	SOUs	DEIs	Total
1	1962-63	-	1,112	1,112
2	1970-71	-	29,500	29,500
3	1980-81	-	1,66,428	1,66,428
5	1985-86	17,009	3,38,090	3,55,090
6	1990-91	1,02,820	4,89,994	5,92,814
7	1995-96	2,00,939	8,02,061	10,03,000
8	2000-01	5,22,506	8,55,494	13,78,000

[7] (Source: DEC Database)

9	2005-06	9,75,844	8,57,680	18,33,524
10	2009-10	16,29,732	20,07,012	36,36,744

2.6 Growth of Enrolment in Conventional and ODL systems

The ODL system witnessed slower growth in respect of student enrolment between 1962 and 1975 due to variety of reasons, prominent among which were lack of awareness and faith on the equivalence and acceptability of such degrees. Conventional system in this period grew very rapidly. Student enrolment almost trebled. ODL system also registered over 60,000 students. Between 1975-76 and 1980-81, enrolment in the formal university system increased from 24.30 lakhs to 27.52 lakhs indicating an increase of 2.65 percent per annum during the five year period, whereas enrolment in distance education rose from 64,210 to 1,66,428 indicating an increase of 31.8 percent per annum during the same period. Enrolment in Open Universities (OUs) and DEIs increased steadily at a higher pace than in conventional programmes. The high percentage of growth in ODL system in this period is attributable to low base besides other positive contributors. The table 2.3 below indicates growth of enrolment in distance education vis-à-vis conventional system over the years.

Table 2.3: Growth of Enrolment in ODL system:

Year	Conventional Universities/ Colleges	Percentage Growth	CCIs/DEIs Open Universities	Percentage share of Distance Education	Percentage Growth	Total
1962-63	7,52,095	-	1,112	0.147	-	7,53,207
1975-76	24,26,109	17.12	64,210	2.578	436.48	24,90,319
1980-81	27,52,437	2.69	1,66,428	5.701	31.8	29,18,865
1985-86	36,06,030	6.20	3,55,090	8.964	22.66	39,61,120
1990-91	49,24,868	7.31	5,92,814	10.744	13.3	55,17,682
1995-96	65,74,005	6.70	10,03,000	13.237	13.8	75,77,005
2000-01	83,99,443	5.55	13,78,000	14.094	7.48	97,77,443
2005-06	111,37,627	6.52	18,33,524	14.256	6.61	1,28,61,544
2008-09	1,36,41,808	4.49	35,31,440	20.56	18.52	1,71,73,440

The overall annual growth in enrolment between 1975-76 and 2008-09 was 5.6% for the conventional system while it was 16.3% in the ODL system. The table shows that the enrolment in distance education has been increasing approximately at the rate of more than 10% in last two decades. Share of distance education has increased from 2.6 % in 1975-76 to 8.9% in 1985-86 and further improved to 10.7% in 1990-91 and to 20.56% in 2008-09.

2.7 Diversification of ODL Programmes

2.7.1 First Decade (1962-63 to 1971-72)

The first DEI (attached to Delhi University) launched B.A. programme initially. It started postgraduate (MA) programme in 1970-71. Out of 17 Universities that offered distance education programmes in this period, 10 offered B.A courses, five- B.Com, one - B.Sc, two - M.A, one - M.Ed and one each certificate and diploma courses (Source: AIU Hand Book, 1984). This decade witnessed mainly general graduate courses being offered through the ODL system.

2.7.2 Second Decade (1972-73 to 1981-82)

By 1977-78, many institutions got approval from the UGC for general Masters Courses like M.Sc, Law (LLB & BGL) B.Ed, M.Com etc. Many other certificate and diploma courses were also introduced by the DEIs during this period. A rising trend was visible in the M.A courses, as the institutions offering these courses rose from 2 during 1972-73 to 10 during 1977-78, accounting for around 28% of the total enrolment (UGC Annual Report, 2000). During 1982-83, the course position in the various Universities was, B.A.- 23, B.Com -17, B.SC- 1, B.Ed -5 (including RCEs), M.A. – 11, M.Com- 6, M.SC 1, M.Ed 3, B.Lit 1.LLB 2, BGL 2 and other certificates and diploma courses.

2.7.3 Third Decade (1982-83 to 1991-92)

In this decade open universities came into existence and started offering programmes in general B.A, B.Com, B.Sc, Professional programme and need based certificate and diploma programme. M.Phil and PhD programmes were also launched by Yashwantrao Chawan Maharashtra Open University (YCMOU). The first MBA programme was launched by Punjabi University, Patiala, in 1985.

IGNOU first launched the Diploma in Management and Diploma in Distance Education programmes in 1987. Subsequently, it developed and started offering BA non-formal, BA/B.Com programmes in 1988. Simultaneously, it also launched certificate in Rural Development and Food & Nutrition. Subsequently, the Diploma in Management was upgraded to a Post Graduate Diploma and MBA by adding a few more modules. Keeping in view the demand of upcoming and new field of information technology, Diploma in Computers in Office Management and Certificate in Computing Programmes were initiated. These were followed by the lunch of Nursing and Health education programmes, Master of Computer Applications and other need based programmes at Diploma and Certificate levels.

Dr. Bhim Rao Ambedkar Open University (BRAOU), Hyderabad started in 1983 with Bachelor in Arts, Commerce and Science. But during this decade diversified Master programmes in Business Administration, Public Administration, Economics, History and Sociology. YCMOU, Nashik launched MA- Educational Communications at Post graduate level and five agriculture programmes at certificate and diploma level in gardening, fruit products, vegetarian products, floriculture and landscape gardening. It started M.Phil and Ph.D programmes also. Management, Computer Education and Teacher Education programmes, which were in great demand, were offered by Universities.

University Grants Commission (UGC) also approved offer of non-formal under graduate programme without any qualification at 10+2 after attaining an age of 21 years which was subsequently reduced to 18 years.

This period is marked by rapid development of a more diversified structure of distance education courses. Besides the traditional courses, a number of non-conventional courses were introduced such as certificate and diploma programmes in the teaching of English, Banking, Labour Laws, Cooperation and Rural studies, Distance Education, Financial Management, International Marketing, Journalism, Library Sciences, Management of Public Enterprises, Operational Research, Land Management, Public Accounting, Tourism and Hotel Management, Company Law etc.

2.7.4 Fourth Decade (1992-93 to 2001-02)

Advancement in interactive communication technologies had major impact in this decade. Both OUs and DEIs introduced a large number of programmes related to computer software and configuration at certificate, diploma, graduate and postgraduate levels. BCA, MCA became main attractions. Also Management programmes in Marketing, Financial Management, Human Resource Development, Banking and Finance, Industrial Relations at Certificate, Diploma, Graduate and Postgraduate levels gained importance.

Programmes in Journalism, Mass Communication, Hospital Management, Foreign Trade, Insurance Management, Environmental Mangement, Human Rights, and Pollution Management, Astrology and Yoga were also introduced by the universities during this period. The general B.A., B.Sc., B.Com and (IT) programmes were also offered by a number of universities. In a nutshell, demand for technical, professional and paramedical programmes started gaining importance in this decade.

2.7.5 The Fifth Decade (2002-03 onwards)

This is the decade of innovation in the field of higher education in general and distance education in particular. The University system started feeling the necessity of responding to the need of the society and growing economy. Market forces started determining the nature and content of the courses. Traditional

courses were found to be inadequate to meet the challenges of the market. Newer areas of specialization started getting attention of the employers and hence the Universities. There was a felt need for skill upgradation of already employed manpower which was not possible through the conventional system because of lack of flexibility in time and space. Taking advantage of the flexibility in ODL system, a number of Universities and Private Institutions became pro-active in imparting specialized skill oriented education through distance mode. A number of programmes with varied specializations as per the global needs were launched in this period. Programmes leading to Degree, Diploma and Certificate in Retail Management, Consumer Awareness, Grief Counseling, Sports Management, Network Administration, Diabetology, Web Design, Graphics and Animation, School Administration, Paramedical, Lab technologies Leather Goods Making, Competency in Power Distribution, Shoe Lasting & Finishing, carpet Technology, Motor Cycle Service and Repair and such vocational and Skill oriented technical programmes became popular amongst the learners.

Necessity of recognition of ODL Programmes by the DEC in the context of the G. O. I. Gazette notification no 44 of MHRD issued in 1995 made the stakeholders, particularly learners, more aware. This aided the expansion of ODL system. While the restrain on the part of AICTE in recognizing Professional and Technical programmes has discouraged genuine ODL service providers, it did not deter the commercial minded operators in the field of Distance education from commercializing it for the want of adequate regulatory framework and manpower.

2.8 Private Sector in ODL system

Advent of Information and Communication Technology has created tremendous impact on delivery of ODL programmes and has provided opportunities for training personnel for the global workplace rather than meeting just local needs. Some of the significant outcome of these developments relevant to ODL are:

- The major players in the industry are making collaboration/affiliation with established universities, for the skill / qualification upgradation of their employees.

- Those involved in management education and information technology are moving over to distance education methods to upgrade their knowledge and skills.

- Foreign education providers, especially from the UK, Canada, Australia and the USA, are also getting actively interested in offering distance education in India.

There is no clear database on the programmes and enrolment of students in these foreign-based and industry-focused institutions. About 20 private Institutions had approached Distance Education Council for recognition of programmes in professional vocational education such as PGDBA, PGDM, PGDCA etc. Many others in the field offering similar programmes have not even cared to approach the Distance Education Council for recognition.

2.9 Use of Technology in Conventional as well as ODL systems

Correspondence course institutions in the early phase used only printed materials for delivery of programmes which was not in self instructional format and there was no student support service. This did not provide any interaction between learner and institution to mitigate the problems of learners. Subsequently, the course material was designed into a self learning format. Assignments and course materials were provided as Student Support Service. Interactive communication technologies: radio, audio, web-based, satellites etc. have opened up the new possibilities for augmenting delivery of student support services through distance mode.

Multimedia in various forms for teaching-learning has augmented chances of ODL system to be a preferred one. Use of audio/video cassettes for delivery of programmes to learners along with printed self learning materials gradually became common. Online communication system at pre-appointed time came in vogue with radio broadcasting, telecasting on TV channels, through cable networks. Satellite communications with one way video and two way audio systems between students and institution and Computer-aided teaching/learning enhanced the reach and flexibility of ODL system.

With the advent of technology, worldwide use of internet has given rise to online or e-learning available with flexi timing. Digital technologies for learning with self-paced learning modules, multimedia case studies, simulations, video tutorials, and communications and assessment tools, have increased the array of learning opportunities for students and their teachers.

The technology integration in Self assessment allows teachers and learners to measure their own skills in desired areas and get a customized professional development plan to improve their skills. Virtual classrooms, libraries and laboratories can be created for providing learning and other support services to the distance learners. On-demand Examination provides students complete flexibility in the system of examination. The ICT can be used extensively in organizing capacity building programs for the ODL teachers and enhancing the ODL system for growth of skilled manpower.

IGNOU is using the state of the art technologies, broadcast, telecast and online system for delivery of programmes. Besides this, several other Open Universities are using online multimedia mix for delivery of programmes. The

print materials used by OUs are in Self Instructional Material (SIM) format. The Distance Education Institutions (DEIs) on the other hand rely mostly on print materials and audio video aids. A few DEIs are using radio counseling for delivery of programmes. Most of the DEIs are continuing the use of print materials in traditional form for delivery of instruction. Realizing the importance of media in delivery of programmes, the Govt. of India has initiated the following three projects for extending the class room lecture, tutorial and evaluation facilities even in conventional system.

2.9.1 National Programme on Technology Enhanced Learning (NPTEL)

National Programme on Technology Enhanced Learning (NPTEL) mentioned ahead is a project of MHRD to supplement the shortage of qualified teachers and supply of quality learning material in the conventional system.

It was conceived in 1999 to enhance the quality of Engineering education in the country by providing free online courseware and in the first phase of the NPTEL project (June 2003- June 2007), seven IITs and the Indian Institute of Science (IISc) have worked together to develop video based materials for basic undergraduate science and engineering courses in order to enhance the reach and quality of scientific and technical education to individuals. NPTEL provides e-learning through online web and video courses in Engineering, Science and Humanities. In Phase I, 260 courses were developed of which 125 were web enabled and 135 video material. About 1,016 courses are proposed to be developed in phase II, with 500 WEB and 516 videos. More than 2,000 e-journals and 55,000 e-books from 297 publishers have been made available on-line under this programme.

2.9.2 The National Mission on Education through ICT (NMEICT)

This Mission is a Centrally Sponsored Plan Scheme, which envisages leveraging the potential of ICT, in providing high quality personalized and interactive knowledge modules over the internet/intranet for all the learners in Higher Education Institutions in any time anywhere mode. The Mission has three major components viz. (a) content generation (b) connectivity and (c) access devices for institutions and learners. It seeks to bridge the digital divide, i.e. the gap in the skills to use computing devices for the purpose of teaching and learning among urban and rural teachers/learners in Higher Education domain and empower those, who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of higher education. It plans to focus on appropriate pedagogy for e-learning, providing facility of performing experiments through virtual laboratories, on-line testing and certification, on-line availability of teachers to guide and mentor learners, training and empowerment of teachers to effectively use the new method of teaching, learning etc.

A number of projects have been sanctioned under the Mission to various institutions of the country for innovative use of ICT. Content development for courses in engineering, sciences, technology, humanities and management level covering both undergraduate and postgraduate courses is underway in collaboration with IITs and UGC.

Under the Mission, each college would get a Virtual Private Network (VPN) of 10 mbps (20 Nodes of 512 kbps; each or lesser Nodes of proportionately higher kbps) from BSNL. 419 universities would get from BSNL, an optical fiber connectivity of 1Gbps and least 400 Nodes Local Area Network (LAN).

More than 6,000 colleges do not have computer infrastructure in their college. Efforts are on to make low cost access-cum-computing devices available to students at affordable price.

2.9.3. National Knowledge Network (NKN)

The NKN was constituted on 13th June 2005. Its key ingredients are resource-sharing, data-sharing and consultations. Easy access to knowledge, creation and presentation of knowledge systems, dissemination of knowledge and better knowledge services are core concerns of the NKN.

The NKN is a state-of-the art multi-gigabit pan-India network for providing a unified high speed network backbone for all knowledge related institutions in the country. The purpose of such a knowledge network goes to the very core of the country's quest for building quality institutions with requisite research facilities and creating a pool of highly trained professionals. The NKN will enable scientists, researchers and students from different backgrounds and diverse geographies to work closely for advancing human development in critical and emerging areas.

The NKN comprises an ultra-high speed CORE (multiple of 10 Gbps), complimented with a distribution layer at appropriate speed. Participating institutions at the edge will connect to the National Knowledge Network seamlessly.

2.10 ODL Integral to Higher Education

Open and distance learning has emerged as a powerful instrument for augmenting opportunities for higher education. Information and communication technologies have acted as a catalyst in the significant impact on delivery of distance mode programmes. Interactive technologies, no doubt, facilitate more learner-centred personalized education and help improve the process of distance education by expanding the scope and content of the curriculum. These technologies have initiated systemic change and the entire system is in a process of transition from campus-based face to face learning to an emerging distributed learning environment. The institutions adopting these new models need to make

significant changes in several areas of technology infrastructure, governance and student support services. The effectiveness with which these issues are managed will set the pace of change and determine the degree to which online learning and teaching become the foundation for a new instructional paradigm.

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CHAPTER 3. : REGULATION OF OPEN AND DISTANCE LEARNING SYSTEM

3.1 Initial Regulations

In the initial phase of ODL i.e. correspondence course, no regulatory framework outside the University system was envisaged. The institutional arrangements and delivery mechanism for the programmes were devised and developed internally by the universities on its own through respective Statutory Bodies like Academic Council and Executive Council.

Later on, when the number of institutions offering correspondence courses started increasing, the University Grants Commission in 1978-79, with a view to maintaining high standards, prescribed certain guidelines for starting correspondence courses (Source: UGC Annual Report, 1978-79) which included the following:

- Originally, correspondence courses at the undergraduate level should be introduced by only one University in a state, except when a university proposes to introduce correspondence courses in a new faculty at the undergraduate level.

- Correspondence courses should be started only by Universities which have well-established teaching departments. The academic responsibility for the contents of the correspondence courses and its standards in any given subject must be assumed by the relevant subject department of the university.

- It should be compulsory for every student enrolled in correspondence courses to return a certain number of response sheets, say 20 every year, suitably spread over various subjects.

- High priority should be given to setting up of study centres where there is concentration of the students.

- The provision of contact programmes should be an essential feature of Correspondence Courses.

In 1985 the UGC in exercise of the powers conferred by clause (f) of sub-section (1) of section 26 of the University Grants Commission Act, 1956 came out with the detailed Regulations for maintenance of standards of instructions for the grant of the first degree through Non-Formal/Distance Education System. These Regulations applied to all first degrees in the faculties of Arts, Humanities, Fine Arts, Music, Social Sciences, Commerce and Sciences. It prescribed the eligibility for admission to the First Degree through non-formal/distance education as 12 years of schooling, the duration of the courses as three years, the content of the

study programme, qualification of teachers and their workload and the conduct of examinations etc. so that the degrees acquired through the Distance Education System is of comparable quality vis a vis the conventional system. The UGC also notified Rules in 1988 to determine the fitness for grants to Open Universities imparting education exclusively through distance education in any branch or branches of knowledge. The regulations specified requirement of land as 40-60 acres, minimum 25 teaching faculty- 5 Professors, 5 Readers and 15 lecturers. It also specified the physical requirement at study centres and the mode of delivery of programmes.

Till the enactment of the Indira Gandhi National Open University (IGNOU) Act 1985, the UGC was the sole Regulator of the university system of education as a whole including the distance education system. Section 12 of the UGC Act provides that it shall be the general duty of the commission to take all such steps as it may think fit for the promotion and coordination of University education and for the determination and maintenance of standards of teaching, examination and research in universities. Further section 26 (1) (f) empowers the commission to define the minimum standards of instructions for the grant of any degree by any University and sub-section (g) empowers it to regulate the maintenance of standards and coordination of work and facilities in Universities.

3.2 ENACTMENT OF IGNOU ACT, 1985

With the enactment of the IGNOU Act, the legal position in respect of regulation of ODL system changed. IGNOU, besides being a University of Open and Distance Learning, was also entrusted with the responsibility of laying norms and maintaining standards of distance education system in the country which is evident from the preamble of the Act, which reads as under :

> "An Act to establish and incorporate an Open University at the national level for the introduction and promotion of open university and distance education systems in the educational pattern of the country and for the co-ordination and determination of standards in such systems."

Section 4 of the IGNOU Act provides that 'the objects of the University shall be to advance and disseminate learning and knowledge by a diversity of means, including the use of any communication technology, to provide opportunities for higher education to a larger segment of the population and to promote the educational well being of the community generally, to encourage the Open University and distance education systems in the educational pattern of the country and to coordinate and determine the standards in such system.'

Section 5 (2) of the Act stipulates that *"Notwithstanding anything contained in any other law at the time being in force, but without prejudice to the provision of sub-section, it shall be the duty of the University to take all such steps as it may deem fit for the promotion of the Open University and distance education systems and for the determination of standards of teaching, evaluation and research in such systems, and for the purpose of performing these functions, the university shall have such powers including the power to allocate and disburse grants to colleges, whether admitted to its privileges or not, or to any other university or institutions of higher learning, as may be specified by the Statutes".*

Although the IGNOU Act gave the authority to regulate the open and distance education system to IGNOU yet it remained only a University till 1991 when a proper statutory authority in the name of Distance Education Council was established to perform the regulatory functions provided under section – 5 (2) of the Act. UGC continue to play the role of the regulator of the ODL system in this period, which is evident from notifications of "UGC Regulations, 1985 regarding the Minimum Standards of Instructions for the Grant of the First Degree through Non-Formal / Distance Education" dated 25th November, 1985 and "UGC (Fitness of Open Universities for Grants) Rules, 1988 dated 8th March, 1989".

3.3 National Education Policy, 1986

A major development after the Education Commission report, headed by Prof. Kothari, was the preparation of the National Educational Policy (NPE) 1986. A countrywide discussion and debate preceded the preparation. The policy document and the programme of action prepared for implementing the policies attached considerable importance to the role of distance education to meet the educational needs of India. The NPE, 1986 looks at distance education as an effective instrument for democratization of education. It envisages the Open University and Distance Education as augmenting the opportunities for higher education, as an instrument of democratizing education and to make it a lifelong process. The flexibility and innovativeness of the open learning system are particularly suited to the diverse requirements of the citizens of our country, including those who had joined the vocational stream.

The Indira Gandhi National Open University, established in 1985 was to be strengthened to fulfill these objectives keeping in view the fact that it would also provide support to establishment of open universities in the States.

As per the NPE (1986), technical and managerial education, programmes through a distance- learning process are to be offered. It would include use of the mass media as the rigid entry requirements to formal courses that restricts the access of a large segment of people.

NPE (1986) also suggested promotion of programmes of distance learning to address the issue of continuous upgradation of skills so as to produce manpower resources of the kind and the number required by the society. For this, special emphasis will be on organization of employment/self-employment oriented, need and interest based vocational and skill training programmes.

It also stresses on the need of media in educational technology in the training and re-training of teachers, to improve quality, sharpen awareness of art and culture, inculcate abiding values, etc., both in the formal and non-formal sectors.

3.4 Regulation of Technical Education

Government of India established All India Council for Technical Education (AICTE) by an Act of Parliament in 1987 for Technical Education with a view to making proper planning and coordinated development of the technical education system throughout the country, the promotion of qualitative improvements of such education in relation to planned quantitative growth and the regulation and proper maintenance of norms and standards in the technical education system. "Technical education" is defined as programmes of education, research and training in engineering, technology, architecture, town planning, management, pharmacy and applied arts and crafts and such other programmes or areas as the Central Government may notify in the Official Gazette. "Technical institution" is defined as an institution, not being a University which offers courses or programmes of technical education. Although the AICTE Act excludes the universities from its ambit, however, it has overall responsibility for defining and maintaining standards in technical education including Universities. AICTE can also advise the UGC for declaring any institution imparting technical education as a Deemed University {Section 10 (t)} and to make recommendations to the Commission or other bodies regarding recognition or de-recognition of the Institution or the programme Section 10 (u)}. So far as Technical Education through conventional mode is concerned, it is established that AICTE is the sole regulator and the Universities, although not purported to be under the regulation of the AICTE, shall have to conform to the norms and standards set by the AICTE. However, in respect of Technical Education through ODL, it is not clear as to who is the regulator – AICTE or DEC or both. Due to lack of clarity on the part of regulators as well as the institutions and even the learners, confusion prevails on the ground. Everyone is responding to the situation as per own convenience leading to utter chaos and virtually no regulation of the ODL system.

3.5 Regulation of Teacher Education

The Government of India established the National Council for Teacher Education as a statutory body in pursuance of the National Council for Teacher Education Act, 1993 on the 17th August, 1995. The main objective of the NCTE is to achieve planned and coordinated development of the teacher education system

throughout the country, the regulation and proper maintenance of norms and standards in the teacher education system and for matters connected therewith. The mandate given to the NCTE is very broad and covers the whole gamut of teacher education programmes including research and training of persons for equipping them to teach at pre-primary, primary, secondary and senior secondary stages in schools, and non-formal education, part-time education, adult education and distance (correspondence) education courses.

Teacher Education Programmes envisage imparting knowledge and development of teaching skill as well as attitude and behaviour to interact with growing children of impressionable age. Therefore, adequate face to face interaction with teacher educators and students is essential. Keeping the unique requirements of the Teacher Education programmes, the NCTE, as matter of policy, did not approve ODL courses. However, having regard to the acute shortage of professionally qualified teachers in certain States/areas and non availability of adequate number of Teacher Education Institutions, it has allowed IGNOU and few other universities to offer Teacher Education Programmes for a limited period to meet the immediate challenge.

3.6 Distance Education Council

In order to promote, coordinate and regulate the standards of education offered through open and distance learning system in the country, the Indira Gandhi National Open University established Distance Education Council as a Statutory Body in 1991. The main functions of DEC provided under Statute 28 Clause 4(a) are:

- To develop a network of open universities/ distance education institutions in the country in consultation with the State Governments, Universities, and other concerned agencies.

- To take such steps as are necessary to ensure the coordinated development of the open university/ distance education system in the country.

- To advise State Governments, Universities and other concerned agencies on their proposals to set up open universities or to introduce programmes of distance education.

- To appoint Review Committees from time to time to study and assess the performance of the open universities/ distance education institutions participating in the network of any respect relevant to the functioning of the network.

- To prescribe a broad framework for courses and programmes including their pattern and structure.

- To evolve norms, procedures and practices in respect of admission, evaluation, completion of course requirements, transfer of credits, etc. of students admitted to the programmes of the open university distance education network and for the award of certificates, diplomas and degrees to them.

- To evolve guidelines for the organization of student support services for the open university/ distance education programmes.

- To appoint Committees for advising and assisting the DEC in the performance of any of its functions or exercise of any of its powers.

Distance Education is predominantly a learner-centred system that supports independent learning based on the packaged course. Quality of the packaged courses depends largely upon the quality of the learning materials included in such courses. In fact, the learning material is the most important ingredient in the entire teaching-learning process. Quality study materials alone can usher in quality in distance education system.

The DEC has been advocating that the institutions which offer programmes through distance mode may follow the broad framework for model curriculum prescribed by the UGC. Guidelines for design, development and delivery of programmes through distance mode in general were prepared and circulated. Programme specific norms for offering education through distance mode have also been prepared. So far, norms and guidelines for offering programmes in Computer education, Library Science, Management programmes have been developed. For maintaining standards in offering Teacher education through distance mode, the NCTE-DEC have jointly developed norms for Bachelor of Education and Master of Education programmes. Recently the DEC has developed a handbook on how to develop Self Learning Materials that has been widely circulated to all ODL institutions.

In pursuance of the policy of promotion of quality and standards in the ODL system, DEC had directed all ODL institutions in the country to submit their learning materials to DEC for assessment and evaluation of their quality. It was, in fact, mandatory from 2004 onward for all institutions to seek prior approval of their programmes from DEC before starting any new programme. An advertisement was released in Feb, 2004 in all national newspapers advising institutions to obtain programme approval and institutional recognition of DEC for offering programmes through distance mode. However, the mechanism to monitor implementation has not been as effective as it should have been, with the result that the norms and procedures could not be enforced effectively.

The Handbook on Recognition process was developed, published and posted on the DEC website for the benefit of applicant institutions. The information required to be submitted along with the application included:

- Infrastructure available at HQs.
- Availability of the course material in Self Learning Format
- Staff Strength at the head Quarters, Regional Centres and Study Centres
- Core Faculty at HQs
- Facility at Regional Centres and Study Centres
- Teaching learning strategies which inter-alia includes Self Learning Materials in print/audio Visual Aids, Tele-conferencing and other ICT facilities etc.
- Delivery System-evaluation system, Library and Resource Centre

For the management of recognition process, the DEC has put in place a three tier process given hereunder:

1. Scanning Institutional information: The information provided by an ODL institution on prescribed proforma is scrutinised at DEC for fulfillment norms on infrastructure, faculty, delivery system, student support system etc.

2. Institutional visit: The information provided by the institution is verified by a team of experts, who assess their preparedness for offering programmes through distance mode.

3. Approval of programmes: The institution submits a complete set of printed material of its programmes to DEC, which are then evaluated through Expert Committees for the content, quality and self-instructional nature of programmes.

Programme approval was done through a process which, inter-alia included evaluation of learning material submitted by institution through a committee comprising subject expert/s and distance education experts. The committees evaluated the various programmes for their content, quality and self learning format.

On the recommendations of these committees, the programmes were either approved or remitted for modifications or rejected. Out of the approximately 200 programmes received at DEC, about 45 programmes of 23 universities were approved by DEC. About 140 of them were recommended for revision and the rest were rejected by the committees. This was a meager number compared to the total number of programmes on offer more than 3000 in number by the ODL institutions as on 2010.

In 2007, the programme approval process was repealed and system of institutional recognition was started by the DEC. As per this decision, all

programmes approved by the respective authorities of the institution would be deemed to have the recognition of the DEC. Hindsight suggests that this excessive liberalization facilitated entry of commercial minded persons in the ODL arena. Although the recognition letter of the DEC stated that before starting any such programme which required approval of any other regulatory body, the same would be taken by the institution but it was followed more in breach. Institutions having recognition from DEC started offering technical programmes also without having any recognition from AICTE or other such regulators responsible for maintaining norms and standards in such technical and professional courses. Advertisements, warning public from joining unrecognized institutions/programmes also does not seem to have worked to weed out such fake institutions.

This was indeed a retrograde step in so far as quality of ODL programme was concerned as institutions began to offer all types of programmes including technical ones which were in high demand in the market without necessary preparation and infrastructure. This paved the way for commercialization of ODL system in a big way.

In this phase, the Institutional recognition was of the following four categories:

I. **Provisional Recognition**: It is accorded for a period of one year to Institutions that satisfy the minimum criteria prescribed by DEC for offering programmes in distance mode.

II. **Continuance of Provisional Recognition:** Such institutions which are given provisional recognition and subsequently apply to DEC for regular recognition are given continuation of the recognition till the Expert Committee visits the Institution, and the decision is taken regarding its regular recognition.

III. **Ex-Post Facto Recognition:** Consequent to the issue of Gazette Notification No-44 dated 1st March 1995, a large number of ODL Institutions approached DEC to accord ex-post-facto recognition which were offering programmes in distance mode prior to the establishment of DEC and till the introduction of the Recognition Scheme by it in 2003. The ex-post-facto recognition has been accorded to such institutions only from 1st March, 1995 or from the date of commencement of distance education programmes whichever is later. However, the Apex Court has commented upon this adversely.

IV. **Regular Recognition:** It is mandatory for all ODL institutions to apply to DEC for regular recognition of their institution. The regular recognition is valid for a minimum period of 3 years and a maximum period of 5 years.

After burning its fingers, the DEC has switched back to programme wise recognition. With the bitter experience of the past, method should be evolved to ensure that students get the desired support services. If need be, even the number

of students can be restricted depending on the availability of infrastructure and human resource.

AICTE, as a matter of policy, does not allow technical programmes through ODL mode, except MBA and MCA. In order to ensure the standards in MBA and MCA programmes, DEC entered into an MOU in 2006 with AICTE prescribing procedures for approval of these programmes by specifying the role and responsibilities of DEC and AICTE. However, the MOU could not become operational. Another attempt to avoid duplicity of efforts in granting recognition to Technical and Professional courses, a Joint Committee of UGC-AICTE-DEC was constituted in May 2007 to jointly inspect the institutions seeking recognition and grant approval jointly. This arrangement was to materialize through an MoU between the UGC, AICTE and the DEC. However, the MoU was not placed before the AICTE Council for its approval as it does not recognize the Technical programmes except MBA and MCA through distance mode as a matter of policy.

Further, none of the three apex bodies delegated any of their statutory authority to the Joint Committee. All the decisions of the Joint Committee were to be ratified by the DEC, which is the statutory authority for the distance education system under IGNOU Act 1985. This arrangement also did not work due to various non-workable clauses in the MoU including requirement of signatures of the Secretaries of UGC-AICTE-DEC on every letter of recognition. Subsequently, a Tripartite Committee of the Chairpersons of the UGC, AICTE and DEC has been constituted by the MHRD(2010) as a recommendatory body for recognition of the ODL Institutions, which considers and makes recommendations to the DEC.

The DEC has been organizing seminars / roundtables and workshops at the national level to popularize the Guidelines and to evolve acceptable standards in order to usher in quality in the system and also for developing mechanisms for quality assurance. The DEC has also been promoting seminars/conferences by giving financial assistance to ODL institutions to organize such events. In addition to these, the DEC funded a number of roundtables and workshops to train the faculty and staff of ODL institutions for development of multimedia course-ware, learner support services, course design and development of self learning materials. Many a time, the DEC has arranged resource persons to conduct seminars/ workshops at ODL institutions in different parts of the country.

3.7 Development Grants for ODL Institutions:

Besides being a regulator, DEC also plays the role of a promoter of ODL system of education in the country. For this purpose, the DEC provides financial assistance to State Open Universities (SOUs), since the eighth plan period. Since the ninth plan, the UGC accorded the responsibility of funding to CCIs/ Directorates of Distance Education attached to Dual Mode Universities to DEC.

The development grants are given for overall development and inducting quality in the system. It is given to institutions for development in various components like Development of Course Materials, Student Support Services, Staff Training and Development, Applications of New Technology, Computerization, Library, Research and Development, Quality Assurance Measures, Networking of DE system etc.

The unassigned grants are meant for travel by heads of institutions and faculty members for attending seminars and conferences, for publications and for organizing seminars, with the idea of encouraging exchange of ideas and experiences.

Research and development forms the backbone of any system in order to bring in quality and standards. Being a dynamic system driven by societal, economic and technological changes, ODL has been changing rapidly and dramatically. The changing technological environment of distance education and paradigm shift affecting it needs to be periodically reviewed. Also the growing acceptance of open and distance learning system in our country and the innovations being an integral part of the ODL system it has become imperative to evaluate the system periodically. There is ample proof of growth of distance education research which is evident from the increasing number of journals, seminars, workshops, symposia etc analyzing the growth of the system.

The DEC research project scheme was launched for encouraging systemic research among distance educators working at State Open Universities, Directorates of Distance Education/Correspondence Course Institutes of conventional universities. Recently the scheme has been thrown open to any teacher/ academic interested in doing research on the ODL system.

3.8 DEC's authority as Regulator questionable:

Although DEC is a statutory body created under the IGNOU Act 1985 which has the mandate to regulate the ODL system of education in India yet questions have been raised about its competence/authority to oversee the functions of other universities which are also autonomous bodies created by Acts of respective legislative and have the authority to create their own norms and standards. In spite of legal mandate, DEC seems to be lacking moral authority on universities. DEC also does not have the necessary manpower to enforce its norms across the country.

Honorable Supreme Court of India in a case relating to Annamalai University regarding the interpretation and application of the UGC (the minimum standards of instructions for the grant of the first degree through non-formal/

distance education) has held that UGC Act prevails over IGNOU Act for specification of degrees. UGC Act was enacted for effectuating co-ordination and determination of standards in Universities. The purport and object for which it was enacted must be given full effect. The provisions of the UGC Act are binding on all Universities whether conventional or open. It also held that DEC cannot give post facto recognition to Distance Education Programmes.

Delhi University has also filed a case in the Delhi High Court challenging the authority of DEC, a statutory body of IGNOU, a university itself, to regulate other university created under an Act of the Parliament.

3.9 Recognition of degrees awarded by Open Universities:

UGC has issued three circulars vide Nos. F.1-8/92(CPP), February 1992; F.1-25/03(CPP-II) dated 28th July 1992 and No.F1-52/2000(CPP-II) dt.5th May, 2004 regarding recognition of Degrees/Diplomas awarded by IGNOU, and Open Universities. It also provided for transfer of credit between the two types of universities so that the mobility of students from Open University stream to traditional Universities and vice versa is facilitated without any difficulty. In its 2004 circular UGC clarified to all the Universities to treat the Degrees/Diploma/Certificates awarded by the Open Universities in conformity with the UGC notification on Specification of Degrees as equivalent to the corresponding awards of the traditional Universities in the country.

Association of Indian Universities by notification vide No. EV/II(449)/176915-177115 dated 14th January, 1994 has also notified that degrees obtained through distance mode are at par with that of the conventional system.

In recognition of the degrees obtained through distance mode for employment in Government jobs, the Ministry of Human Resource Development, Government of India issued a Gazette notification No. 44 F.No. 18-15/93-TD. V/TS.IV dated 1st March 1995, which states that *'.....On the recommendations of the Board of Assessment for Educational Qualifications, the Government of India has decided that all the qualifications awarded through Distance Education by the Universities established by an Act of Parliament or State Legislature, Institutions Deemed to be Universities under section 3 of the UGC Act, 1956 and Institutions of National Importance declared under an Act of Parliament stand automatically recognized for the purpose of employment to posts and services under the Central Government, provided it has been approved by Distance Education Council, Indira Gandhi National Open University and wherever necessary by AICTE.....'*

3.10 Status of Recognition by the DEC (As on 31.03.2011)

Total no. of Institutions recognized by the DEC so far : 189

Total no. of applications received by the DEC for programmes approval	:	207
Total no. of Visits of Expert Committees conducted	:	82
Total no. of Visits of Expert Committees to be conducted	:	80
Proposals under process	:	45

Programme-wise approval accorded

(a)	by the Joint Committee	:	25
(b)	by the DEC	:	35
	TOTAL	:	60

(Source: DEC data, March, 2011)

3.11 ODL system: Practically unregulated:

ODL system has certainly taken firm roots in higher education in the country. More and more conventional universities are opening ODL centres and are adopting dual mode systems. Number of institutions engaged in ODL system is increasing at a rapid pace. The regulatory system in place is unable to cope up with the increasing demand from the system for efficient and effective regulation. Neither DEC nor UGC nor AICTE has the wherewithal to enforce their norms. They also do not have the necessary technological support to switch over to self disclosure system of regulation followed by random and occasional spot verifications. Learner is also not as conscientious and demanding for quality service from the ODL institutions. All these lead to a free for all situations in the field, particularly for those who have entered the ODL system with a commercial motive.

The University Grants Commission seems to have left the matter to the DEC which does not have the infrastructure to regulate effectively the nation-wide emergence of ODL programmes by all sorts of institutions. The AICTE does not recognize technical education through ODL mode except MBA and MCA courses. A tripartite Committee consisting of UGC, DEC and AICTE to manage the situation failed to take off. Similar confusion prevails in respect of ODL courses supposed to be regulated by other professional bodies, be it Medical Council of India, Dental Council of India, Nursing Council of India, National Council of Teacher Education etc. Thus, the field today is practically "unregulated" in any meaningful way. UGC has even sought a moratorium on starting new ODL institutions/courses till an effective regulatory mechanism is put in place. Others

are demanding that only established Universities and colleges running face-to-face programmes alone be allowed to run ODL programmes. Still others including IGNOU want the DEC to be put on a statutory basis as an independent regulator possibly under the proposed NCHER. In short, there is a widespread feeling both among higher education authorities and the distance education providers that the system is in urgent need of management and regulatory reform if it has to fulfill the increasing demand of learners for access and quality.

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CHAPTER 4. : OUTCOME BENCHMARKS FOR ODL SYSTEM

4.1 Introduction

The emerging trend in higher education in the world and also in India appears to be a convergence of ODL and conventional mode of education facilitated by technology. It makes education more relevant, accessible and advantageous to the learner. Use of ICT strengthens ODL programmes also with necessary teacher guidance and provides for hands-on practical experience in learning skills to students. IGNOU, primarily an open university, has started offering education in face to face mode also and it, therefore, stands out among ODL institutions in the country. Open Universities in U.K., Hong Kong, Australia and some other countries also offer full-time residential programmes in their campuses or in collaboration with public and private institutions. It is reported that over 50 per cent of programmes in open universities around the world are offered through the dual mode, maintaining high quality of distance education.

The problem with ODL institutions in India, excepting a few honourable exceptions, is with the quality of education imparted particularly in the absence of an effective regulatory system in place. Presence of multiple regulatory agencies with overlapping jurisdictions have led to lack of coordinated management and sometimes to the game of playing one against the other to escape responsibility. DEC has framed Guidelines for development and delivery of programmes as well as for assessment and accreditation. UGC has devised norms for curbing "franchising of higher education through off-campus study centres". Norms and regulations have also been made by AICTE, NCTE and even MHRD with a view to maintaining equivalent standards in ODL programmes. Yet, the systems in place are too weak to implement the norms and enforce quality assurance. The complaint often made by ODL institutions is that the norms are too rigid and unrealistic, lacking the flexibility to the diversity of local contexts and emerging concerns. [Source: Prof. V.S. Prasad on "Quality Assurance of Distance Education" in Four Decades of Distance Education in India, Viva Books (2006)].

As Prof. Prasad, a veteran in ODL and assessment systems of NAAC has stated "*the distance education system in India can be described as one system, many models. There is great variation in quality assurance policies, systems and practices of these institutions. At one end of the spectrum we have IGNOU and SOUs which do have quality assurance practices like good study materials, student support services, technology infrastructure etc. At the other end of the spectrum, many institutions are offering sub-standard DE programmes with large enrolments by franchising delivery. Some of them are also offering on-line education and training programmes. Mechanisms to ensure the quality of these programmes are yet to be developed".*

Few conclusions on quality assurance are drawn by the author which are relevant to the issues raised here:

i. When DE took rapid strides with resource-sharing partnerships with conventional systems, the quality is partly determined by the quality of conventional higher education itself due to the heavy reliance on counselors, lesson writers and examiners who came from the conventional system. The quality in conventional system naturally reflected in ODL system as well.

ii. In later years, large enrolment in DE is not matched by requisite efforts for quality. Alternate modes of education are adopted without effectively integrating alternative technologies required for that.

iii. Without having internal quality assurance structures and processes in every individual ODL institution, there is no way of ensuring quality of operations.

iv. Assessment and accreditation systems available with DEC and NAAC are in initial stages of development and are yet to make the desired level of impact.

v. There is no proper training or motivation on the part of DE staff to be able to develop quality consciousness and approaches.

vi. Life cycle of available technologies is getting shorter and shorter. This necessitates constant upgradation of technologies in ODL system which require capital investments for which DE institutions are seldom prepared.

vii. There is no meaningful research on ODL systems which may throw light on activity costing, self-sustainability, technology infrastructure, learner support services etc.

viii. Student support services pose a major challenge in situations where ODL programmes are offered in multi-cultural and multi-lingual settings. Competence of students to use English is a problem to be addressed before quality and standards can be talked about.

The problem of 'Outcome Benchmarks' is therefore complex and varied and no simple or easy solutions can be offered unless questions such as those posed above are satisfactorily answered. It requires a change in the mind set of all stakeholders, particularly, the regulators and the service providers. Quality on continuing basis comes only through an awakened demand from the service recipients.

4.2 General Perspectives on Quality

Almost in every country there is an increasing pressure on the higher education system to equip students with not only the expertise derived from 'traditional' academic programmes, but also to provide them with sufficient range of transferable skills to enable them to play more important role when they enter employment. Thus, the institutions of higher education need to have a very clear understanding of what they are seeking to achieve through their academic programmes. In addition, whatever they do needs to be of high quality.

The general concept on quality in higher education is also applicable to open learning and distance education mode. This means one has to take into cognizance the interests and aspirations of all the beneficiaries namely students, teachers, staff, parent, funding agencies, employers and the society in general. The fitness for purpose is the true yardstick for distance education mode in open learning. Besides. The quality of the learning material and the nature of delivery of services to learners are important quality determinants. A variety of methods and systems are used to deliver distance education and the effectiveness and quality of these innovative means of delivery become crucial while assuring quality in open learning through distance education mode. Learner outcomes in three major domains – cognitive, psychomotor and affective, need to be looked into carefully. One has to seek evidence for the effectiveness of distance education methodology to achieve cognitive outcome. In addition, it becomes important to observe, particularly for science and professional subjects, the effectiveness of distance education with respect to affective and psychomotor outcomes. Besides learner outcomes, the evidence on the other aspects related to distance education namely, access, drop out rate, cost effectiveness, efficiency in delivery, relevance to needs, and generation of knowledge are also important benchmarks in this regard.

In view of the above, there cannot be any one definition on quality in open learning through distance education mode. One needs to consider several aspects related to distance education mode while making the judgment on the quality on the working of these institutions of higher education. We, therefore, need to consider in detail the organization and working of the Open University and Distance Learning systems in India to be able to recommend Outcome Benchmarks and its application.

4.2.1 Organizational Structure of Open Universities/DEIs

Open Universities are innovations of nineteen eighties and were established to augment opportunities for higher education. Their organizational structure can be put at two levels:

Level I : Main Body (Headquarter)

This has two limbs which deal with the following core activities:

- Administrative Limb: University's Central Administrative Structure dealing with administrative and financial policies.

- Academic Limb: Schools or Faculties which are directly responsible for initiation, design, development of programmes and instructional material, academic counselling and evaluation of learners.

Level II: Support Body (Regional Centres)

This deals with the following support activities:

- Registration and evaluation

- Production of instructional material: Print, Audio/Video and multimedia

- Delivery mechanism

- Academic counselling support to students

- Declaration of results and award of degrees

- Administration and management of finances

There is a coherent organic link between the two levels and the entire functioning of the Open University system is dependent upon the effective and efficient working of its various limbs.

4.2.2 Organizational Structure of the DEIs :

The Directorates of Distance Education in Conventional Universities have mostly independent structures to plan development and delivery of programmes and administer the same. The activities of DEIs can also be classified on the pattern of Open Universities system such as:

Academic activities: DEIs generally have faculty in concerned disciplines as coordinators and adequate number of support staff. DEIs do not have independent departments. The coordinators are entrusted with planning and development of course materials with the help of support staff as well as outside experts. The major activities in this category include,

- Planning and Production of Instructional Materials,

- Academic Counseling, and

- Evaluation of Assignments and Examinations papers.

Administrative Activities: These include the following:-

- Registration of students
- Administration and Management of Finances
- Management of Study Centres / Student Counseling
- Examination related activities
- Declaration of results and award of certificates/degrees

4.2.3 Unit of Assessment

Unit of assessment is an important factor as assessment of student's learning level revolves around it. Whether institution as a whole or a department or a programme should be taken as a unit of assessment is the moot question which needs to be answered. If we take institute as a unit, then its each independent unit and activities associated with it such as programmes on offer, activities of divisions, schools or faculties, administrative structure may serve as input and contribute to the total assessment of the institution. In case of department as a unit of assessment, the faculty, programmes on offer and the management may contribute to the assessment. However, for a programme as unit of assessment, the basic content, its development and delivery mechanism become important. A department/school or a programme of study as a unit compared to the institution can provide better idea to all the stakeholders (parents, learners, prospective employers etc.) and may help identify its strength and weakness. The assessment and accreditation information can be helpful to aspirants of such programmes and to prospective employers also who look for getting students of high calibre for employment under them.

Distance Education Institutions usually have lean infrastructure facilities. All the activities of the distance mode institutions are usually organized for delivery of programmes including support services. The success of the distance mode institutions is usually judged from the quality of programmes on offer. Therefore, a programme as unit of assessment is more reasonable and pragmatic for distance mode. Its planning, development, delivery process, choice of media mix and student support services are important parameters to take into consideration for Outcome Benchmarks.

4.3 DEC Initiatives on Quality Assurance

DEC has prepared several Guidelines, Norms, Standards and Database for bringing in quality in ODL system. They are listed below in chronological order.

- Preparation of Database and Networking of Open Universities (1993-1994) was undertaken with a view to planning promotion of distance education system, and to evolve criteria for development assistance to open universities.

- In order to ensure minimum standard in programmes content the Standardizing Grading for Credit Hour /system 1993-1994 was developed to enable mobility of students from one institution to the other including conventional system.

- Norms and Standards for Management Education programmes through Distance Mode, 1996 was developed with a view to ensuring optimal standard in management programme delivery. These norms and standards provide details about infrastructure facilities, staff, availability of course materials and requirement of study centres. These were implemented in the initial stage of programme approval.

- Norms and Standards for Computer Education programmes through Distance Mode, 1996 was developed on the similar lines as that of management programme.

- Norms and Standards were developed also for Library Science Education programmes through Distance Mode, 1996

- Guidelines for Sharing of Materials from Common Pool of Programmes — 1996 was developed with a view to avoiding duplication of efforts in development of course material.

- Performance Indicators in Distance Education, 1996[1] provides details of the conference proceedings organized by DEC to evolve parameters for ensuring quality for different aspects of the programme development and delivery.

- Self Assessment Manual for Open Universities. 1997 was developed with a view to initiating approval of programmes. The main aim was to help the institutions undertake indepth studies of its activities followed by a peer review.

- Manual for Research in Distance Education –1997 was evolved to provide basic guidelines for submission of major and minor research projects to DEC.

- Norms and Standards for B.Sc.(Nursing) programmes through Distance Mode were developed in 1998-99. Nursing programmes are offered as per guidelines of Nursing Council of India.

- Guidelines for financial assistance to State Open Universities (SOUs) & Correspondence course Institutions (CCIs)-1997 and 2000 was developed

with a view to helping SOUs and DEIs to submit proposals for development of assistance.

- Expert Committees on Research Projects- have been constituted with a tenure of 2-3 years. The committees have helped in formulating guidelines, modifying them, screening of the research project proposals and recommending proposals for financial assistance. Such Committees were formed in 1996, 1999, 2000 and recently in 2007.

- Guidelines for Policy for Academic Staff in D.E.– 2000 was evolved to workout the work norms of teachers working in distance education system.

- Development of proformas, guidelines, handbooks for recognition purpose- 2007 to ensure quality in programme delivery.

- Development of minimum norms for ensuring quality in ODL institutions- 2007.

- Development of proformas, guidelines, handbooks for assessment and accreditation of ODL institutions- 2009.

It is evident that the work done for quality benchmarking is too minimal. It should have engaged utmost attention. Without a clear quality bench mark, it becomes difficult for any service provider to create the necessary and desirable learning environment. DEC and all other regulators should develop programme wise benchmarks to bring in transparency and accountability in the ODL system. For this, the principles given in subsequent paras can be used as the beginning point by all the regulators.

4.4 PLANNING AND DEVELOPMENT OF ACADEMIC PROGRAMMES

- The programme should emanate from the perspective plan of the University.

- Development of academic programmes should go through three stages namely: Programme formulation, Instructional Design and Material Development, which is given in Table 4.1 below

Table 4.1. : Stages in Programme Development:

Programme Formulation	**Instructional Design**	**Material Development**
- Need Assessment	- Formulating Structure	- Course Writing

- Defining Target Groups Course Identification based on level of the programme to provide desired knowledge, competencies and skills - Adoption of a house style	- Selection of appropriate media for delivery of instruction - Finalizing Unit wise Course Outlines for all courses - Identifying Themes for print/ audio-video programmes/e-learning components etc - Deciding Strategies for Course Delivery - Deciding Student Evaluation and Feedback System	- Content Editing - Format Editing -Developmentof Graphics, Illustrations etc - Finalizing Manuscript -Integrated Content, Language and Format editing - Testing of Material -Printing and/or Formatting for the Website - Periodic Revision and Updating of Material by obtaining feedback from students and stakeholders

- Materials developed should be in self learning format and could be in the form of a media mix comprising print, audio/ video programmes, web based materials, CD-ROMs, including animations

- Production of materials may be outsourced to professional agencies in case in- house facilities are not available

- Modular approach may be followed with provision of multiple entry/ exit points, leading from lower to higher qualifications

- UGC model curriculum may be a point of reference.However, to meet the specific needs of learners and demands of the society, deviation for betterment is advisable

- Expert Committees, with experts drawn from industry as well, should be involved in the development of curriculum and the design of programme

- The programme should be approved by Statutory bodies of the University

- Nomenclature of the degrees must be as per UGC guidelines

- Material should be ready before the launch of programme

- Study input for each programme should be well defined in terms of credits (1 credit =30 study hours) depending on the level of the programme. The credit

weightage may be as per DEC norms which depends on the type of programme and the level at which it is being offered.

4.5 DESIGN OF SELF LEARNING MATERIALS (SLMS)

- SLMs should be in the form of print, audio, video, CD, web based, computer aided etc.

- Credit value of the programme to determine the number of units (**), counseling sessions (theory and practical), assignments are as proposed in Table 4.2.

Table 4.2: Norms for delivery of courses through distance mode based on credit system

Credit Value of the course	**Study input (hours)**	**Size of SLMs Range (in terms of units**)**	**No. of Counselling Sessions Theory (10% of total study hours)**	**Practical Sessions**	**No. of Assignments**
2 Credits	60	6-8 units	6 hours	60 hours	1
4 credits	120	14-16 units	12 hours	120 hours	2
6 credits	180	20-24 units	18 hours	180 hours	2
8 credits	240	30-34 units	24 hours	240 hours	3

(**) Each written unit should ideally be of around 5000 words.

SLM should contain much more than just information; they must make the learner think, write and do. As such, they should contain:

- Clearly stated objectives or statements of intended learning outcomes

- Content should be broken down into small chunks in the form of sections and sub-sections

- Each learning objective should be covered in the form of sections and sub-sections, self assessment questions and activities

- A unit structure at the beginning of the unit

- Uncluttered visually attractive layout design

- In formal and friendly tone and style

- Readable, fluent and unambiguous text

- Plenty of examples, references to prior learning, case studies, diagrams, illustrations etc.

- An introduction that is stimulating
- A glossary explaining difficult words/ new terms etc
- A summary that is clear and useful
- Responses to self assessment questions and activities
- Adequate suggested recent readings

4.6 STUDENT ADMISSION

- Preparation of Prospectus and application form containing criteria for admission, fee and duration
- Sufficient number of Prospectus and application forms should be made available at all Study Centres, Regional Centres and HQs
- Registration should be done as per the schedule, maximum within 3 months from the last date of submission of applications
- Issue of enrolment numbers and identification cards to all learners
- Confirmation of admission should be informed to the learner along with basic guidelines on how to study and learn in the ODL mode at the earliest on completion of process of admission
- Franchising should be avoided.

4.7 LEARNER SUPPORT SERVICES

- Organized learner support through Study Centres established and maintained by University/ Institution at existing recognized educational institutions having the required infrastructure and programme requirement
- Study Centres to provide both academic and administrative support services, such as dissemination of information, academic counseling (for both theory and practical courses), vocational guidance, hands-on-experience, multimedia support, library services, evaluation of assignments, feedback, guidance of project work, organization of seminars, field trips, conduct of term end exams, monitoring, etc.
- Study Centres to be identified within the state or outside as per the jurisdiction of the University

- Learners should be made aware of the support services provided to them through programme guides, brochures, letters, website, emails, SMS on mobiles etc.

- Media for supporting learners should be accessible to target groups and interactive in nature to provide timely feedback

- The University/ Institution should also cater to the special needs and requirements of diverse learner groups including women, physically challenged, economically weaker sections of the society and other deprived and denied groups by adopting a diversified delivery approach

- Induction programmes should be made compulsory and held at the beginning of the academic session

- Regional Centres to be established when the number of study centres is spread over large areas, also depending upon the number of learners and number of programmes on offer

- Criteria should be laid down by the concerned Schools/ Departments for selection of qualified academic counselors

- Provision of adequate manpower to run the Study Centres and Regional Centres as per DEC norms.

- Study Centres to maintain records pertaining to:

    - Academic Counsellors and Staff

    - Students Registered

    - Counselling Sessions

    - Assignments Received, Evaluated and Returned

    - Student Queries

    - Administration and Finance

    - Student feedback about the course, delivery, counselor/teacher, facilities, environments, etc.

- Schedule of counseling sessions should be sent to learners well in advance

- Organization of counseling sessions should be done course wise on holidays, weekends, after office hours

- Maximum students attached to a counsellor should not exceed 60 in the case of theory sessions and 20 in practical sessions

- Library facility should be available at all Study Centres, Regional Centres and HQs

- Study centres should get the assignments evaluated within maximum 6 weeks from the date of receipt and return the evaluated assignments to the learners with appropriate comments, deficiencies and strengths.

- Academic counselors should provide regular meaningful feedback to learners through tutor comments

- Timely tabulation of grades/marks of assignments which should be dispatched to the HQs

- Monitoring of services provided by Study Centres and Regional Centres to the learners through monthly reports, visits by academic staff at least one per semester, etc.

4.8 LEARNER ASSESSMENT AND EVALUATION

- Assessment should be both formative as well as summative.

- Formative assessment should be through tutor marked assignments projects, seminars, hands on experience, practicals linked to the objectives and desired competencies/ skills or expected learning outcomes.

- Turn around time for providing feedback on performance to the learners should not exceed 6 weeks and definitely before the terminal exam commences.

- Formative assessment should contribute to 25% to30% weightage in the overall assessment

- Summative assessment should be in the form of term end exams for both theory and practicals or any other comprehensive method of assessment

- Summative assessment should be both descriptive and objective and application oriented contributing to 70%-75% in the overall assessment.

- Tools of assessment should be prepared by empanelled experts and widely publicized.

- All tools of assessment should be moderated before being administered to ensure reliability and validity and standards as per the level of the programme

- Preparation of ideal responses for assignments as well as term end examination questions which should be supplied to evaluators
- Examinations should be held at Study Centres/ or any other centre identified by the University having necessary facilities and support environments.
- Availability of at least 2 sets of question papers for each course before commencement of exams
- Use of a common exam form for all courses and programmes
- List of examinees to be provided to exam centres well in advance
- Proper conduct of term end examination and dispatch of sealed scripts immediately to the HQs
- Term-end examination should be held twice a year and the timetable should be circulated to the learners 3 months in advance and put on the website.
- Accurate compilation/ tabulation of grades/ marks by the exam unit for each learner, course wise need be maintained
- Evaluation of term end exam papers, assignments, projects etc. should be done by empanelled evaluators, it should not be outsourced
- Measures should be taken for fair conduct of examinations, such as deputing of observers, sending of flying squads etc.
- Time schedules should be adhered to particularly in the declaration of results
- Accuracy/ authentication of Certification should be ensured
- Dispatch of provisional certificates to learners immediately after declaration of results
- Timely award of Degrees or Diplomas

4.9 USE OF ICT

- Every University/ Institution should have its own Website
- All the relevant information, about various, courses, fee structure, rules,

  Examination, etc. must be available on the internet.

- Depending upon the nature of the programme, target groups and financial resources of the university/ institution the following communication technologies in Table 4.3 could be deployed:

Table 4.3 : Communication Technology for different activities.

Communication Technology	Activities
Radio	-Broadcast of audio programmes -Counselling (informing, advising, counselling) -Live interaction with learners
Television	-Broadcasting of video -Counselling (informing, advising, counselling) -Live interaction with learners through teleconferencing -Training of functionaries
Telephone	-Counselling (informing, advising) and mentoring
Computer	-Development and maintenance of databases -On-line interaction -Connectivity of all centers
Internet and Satellite	-Institutional information -Academic resources -Providing academic and administrative services -Videoconferencing
Mobile	-Institutional information -Academic resources -Providing academic and administrative services

CHAPTER 5: TECHNICAL PROGRAMMES THROUGH DISTANCE AND MIXED MODE

5.1 Technical Education in India – through Conventional Mode

The technical education as a discipline in India traces back to 1794, in the form of survey schools. Starting with certificate programmes, it grew to diplomas and later to bachelor degree in the second half of the 19th century. In the fifties of the 20th century post graduate degree programmes started to be offered in technical education. Among the engineering colleges, the earliest ones are the College of Engineering, Guindy, Madras; Thomason College of Engineering, Roorkee; The Bengal Engineering College, Howrah and the Government College of Engineering, Pune (Source: Kulandai Swamy, V.C., (1995), pp-47-67, H E in India –in Search of Quality, AIU publication).

In 1947, when India became independent, there were about 100 industrial training institutes (ITIs), 53 polytechnics and 38 engineering colleges preparing

students for the award of certificate, diploma and bachelor's degree programmes. Postgraduate education programmes were started during the early nineteen fifties followed by doctoral programmes. The fifties and major part of sixties and the eighties marked the periods of expansion of technical education. (Kulandai Swamy, V.C, 1995, *op cit*.).

The year wise growth of programmes in Technical education from 2005 onwards is given in Table 5.1 below and growth of Seats in different Programs in Technical Institutions during the same period is given in Table 5.2 , subsequently..

Table 5.1: Growth of different Programs in Technical Institutions

Year	Engineering	Management	MCA	Pharmacy	Architecture	HMCT	Total	Added in Year
2005-06	1,475	1,888	1,576	629	118	70	5,756	383
2006-07	1,511	2,031	1,619	665	116	64	6,006	250
2007-08	1,668	2,062	1,642	854	116	81	6,423	417
2008-09	2,388	2,734	1,768	1,021	116	87	8,114	1,691
2009-10	2,942	3,482	1,888	1,054	106	93	9,565	1,451
2010-11	3,241	3,858	1,937	1,102	125	101	10,364	799

(Source: paper presented by Dr Mantha, Chairman, AICTE, in the Committee meeting)

Table 5.2: Growth of Seats in different Programs in Technical Institutions:

Year	Engineering	Management	MCA	Pharmacy	Architecture	HMCT	Total	Added in Year
2005-06	4,99,697	1,22,663	61,991	32,708	4,379	4,435	7,25,873	40,691
2006-07	550986	1,44,372	63,394	39,517	4,543	4,242	8,07,057	81,181
2007-08	653290	1,85,780	78,692	52,334	4,543	5,275	9,79,914	1,82,860
2008-09	841018	2,27,989	82,578	64,211	4,543	5,794	12,26,133	2,46,219
2009-10	1071896	2,73,732	1,21,123	72,836	4,133	6,387	15,50,107	3,23,974
2010-11	1324246	3,78,907	1,35,173	1,03,867	4,933	7,061	19,54,482	4,04,375

(Source: paper presented by Dr Mantha, Chairman, AICTE, in the Committee meeting)

Accordingly, in 2005-06, the number of programmes in engineering was 1475, that in Management was 1888 and the total number of Technical programmes including pharmacy, Architecture, Hotel Management and Catering technology was 5756. During the year the total seats for engineering were 4,99,697, for management programmes 1,22,663 with aggregate seats for the all programmes being 7,25,873. The number of Technical programmes on offer kept increasing and so did the seats for the Technical education. The percentage growth of programmes was noticeably higher during the period 2008-2010. The seats under technical programmes showed a steep rise in

2008-09 and the growth rate in seats available for such programmes then stabilized at about 25% increase year over year as is evident from the table below. .

Table 5.3- percentage growth in programmes and seats in technical education

	Technical Programmes			Seats in Technical Programmes		
Year	**Total programmes**	**Added in Year**	**% growth over the previous year**	**Total**	**Added in Year**	**% growth over the previous year**
2005-06	5,756	383		7,25,873	40,691	
2006-07	6,006	250	4.34%	8,07,057	81,181	11.18%
2007-08	6,423	417	6.96%	9,79,914	1,82,860	18.66%
2008-09	8,114	1,691	26.32%	12,26,133	2,46,219	25.13%
2009-10	9,565	1,451	17.88%	15,50,107	3,23,974	26.42%
2010-11	10,364	799	8.35%	19,54,482	4,04,375	26.09%

(Source: Based on Table 5.2 and Table5.3 above)

5.2 Disciplines under Technical Education-Conventional Mode

As per the AICTE Act, 1987 technical education covers Engineering, Technology, Management, Architecture and Pharmacy. Consequently developing norms and guidelines for these subjects come under the purview of the All India Council for Technical Education. Various institutions offering technical professional programmes are broadly classified as follows:

1. Engineering programmes include:

    i Diploma Programmes offered by Government Polytechnics, Aided Private Polytechnics and Self-Financing Private Polytechnics.

    ii Degree Programmes offered by IITs and IISc, Technical Universities including Deemed to be Universities, University Departments of Engineering/Technology, Regional Engineering Colleges, Government Engineering Colleges, Aided Private Engineering Colleges, Self Financing Private Engineering Colleges, Professional Associations offering programmes equivalent to Degree and Other special institutions.

2. Management Programmes: IIMs and Autonomous Private Institutions offer PG Diploma while University Departments and Affiliated Colleges (Government, Aided Private and Unaided Private) offer M.B.A programme.

3. Pharmacy: Diploma/Degree courses are offered by Pharmacy Colleges, University Departments and Affiliated Colleges.

4. Planning and Architecture : Bachelor's Degree/ Master's Degree are offered by School of Planning and Architecture, University Departments

and Affiliated Colleges (Government, Aided Private, and Unaided Private).

Besides, there are special institutions as the Indian School of Mines, Dhanbad (ISM), the National Institute of Training in Industrial Engineering (NITIE) Mumbai, Technical Teacher Training Institutes (TTTIs) at Bhopal, Kolkata, Chandigarh and Chennai, the Administrative Staff College of India, Hyderabad, and the National Institute of Industrial Design, Ahmedabad, which offer engineering programmes. In addition, several professional bodies offer, on the basis of their own examinations, memberships to learners which is recognized equivalent to Bachelor's degree. About 85,000 candidates appear for section A and B of the Institutions of Engineers (India) out of which about 4200 candidates qualify every year for section A and 3500 for section B. Information regarding other such associations could not be available. (Kulandai Swamy, V.C, 1995, *op cit*.)

5.3 Management of Technical Education

The administration and management of technical institutions involves a complex and somewhat loosely defined role of Universities, Governments and Regulators. There is a complex interface between and among them and consequently the institutions have to seek approval from more than one organization either for starting new programmes or for financial support.

At the national level, the AICTE is the apex body regulating technical education. It was established in 1945 as a national expert body to advise the Central and State Governments on the development of technical education and was made a statutory body by an Act of Parliament in 1987. AICTE has the responsibility for ensuring the co-coordinated and integrated development and maintenance of standards of technical education. It also provides development funding. The AICTE has a General Body, an Executives Council, a National Board of Accreditation, eight Boards of Studies, Board of Research, Board of Industry Institute Interaction and Board of Staff Development and Continuing Education. The AICTE also has six Regional Committees.

Universities do not need prior approval of AICTE for starting Engineering programmes. As per AICTE Act "technical institution" means an institution, not being a university which offers courses or programmes of technical education, and shall include such other institutions as the Central Government may, in consultation with the council, by notification in the official gazette, declare as technical institution. The University departments in engineering, the technical universities and the deemed Universities come under the purview of the UGC and they seek approval of the AICTE for financial support through the UGC for programmes and receive funding through the UGC even though they can submit project proposals directly to the AICTE or for that matter to any other funding agency. The Council of Architecture has a say in the curriculum, syllabi, duration

and infrastructure facilities before the AICTE could recognize a programme. Thus, a school or a college or a department of a University offering a degree programme in Architecture has to approach the Board of Studies of the concerned University for its curriculum and syllabus, the AICTE for approval of the programme and for developmental funding, and the Council of Architecture for recognition.

The State Boards of Technical Education prescribe the curricula and syllabus for the diploma courses, conduct examinations, and award the diploma. The State Universities prescribe the curricula and syllabi for the state level colleges offering degree programmes in technical education. They also conduct examinations and award degrees. However, the introduction of a new programme or the establishment of a new College requires the approval of the AICTE.

5.4 Technical Programmes through Distance and Mixed Mode

Technical programmes through distance mode was initiated first by Birla Institute of Technology and Science, Pilani (1979) and Jawaharlal Nehru Technology University, Hyderabad (1983) as continuing and distance education programmes and collaborative work integrated learning for in service Diploma holders. Subsequently, IGNOU started Advanced Diploma programmes in Water Resource Engineering and Construction Management (1996), which were subsequently upgraded to bachelor level programmes(2006). YCMOU, Nashik (1996) and Karnataka State Open University also launched technical programmes. Around the year 2000 several conventional and Deemed Universities to name a few JRN Rajasthan Vidyapeeth deemed University, Udaipur; IASE Deemed University, Sardarshahr, Rajasthan; Vinayaka Missions Deemed University, Salem, Tamil Nadu and Allahabad Agriculture Institute Deemed University, Allahabad, Uttar Pradesh now renamed as Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad started offering technical programmes in Engineering through distance mode.

Some details about the Institutions offering engineering programmes are provided as under:

5.4.1 Jawaharlal Nehru Technological University, Hyderabad

Jawaharlal Nehru Technological University, Hyderabad has introduced the correspondence-cum-contact programme in different specialization (Civil Engineering, Mechanical Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering) from the academic year 1983 onwards and the specialization in Computer Science and Engineering from 1999 onwards. The intake of students for the year 2008-09 branch wise is as follows:

- Civil Engg. : 320
- E.E.Engg : 503
- Mechanical Engg. : 595
- E.C.E : 416

- C.S.E : 67

Total :1905

Duration and Eligibility: The duration of these programmes is 4 years. Admission is open to Diploma holders in concerned branch of Engineering with one year experience and working in the State of Andhra Pradesh at the time of the application.

Credit System: The B.Tech programme is offered on the basis of credit system to have flexibility in the system. A student can have the choice in courses of study and go through the programme at his own pace. Unit system is adopted, giving 8 credits for the theory and 4 credits for Lab courses. Each course is treated as independent unit for evaluation and successful completion.

Instructional Material: Printed instructional material is made available for home study. The syllabus is broken into units. Lab manuals are supplied for each lab course. Assignments are appended for students response besides self assessment questions at the end of each unit. The assignments are evaluated and returned to the candidates pointing out the inadequacies in the responses.

Personal Contact programmes are arranged for theory and practicals for 2-3 weeks continuously and conducted at Anantapur, Kakinada and Hyderabad centres. While the attendance in theory contact programme is optional, attendance in practicals is compulsory.

5.4.2 Birla Institute of Technology and Science, Pilani

Birla Institute of Technology and Sciences (BITS), Pilani is a deemed University established in 1964. The institute has been participating in the human resource development activities of the industries by evolving several degree/ diploma programmes which integrate the working environment of the employees with the learning environment required by the Institute. Such programmes were initiated in the year 1979 at the request of the industries hosting Practice School Programmes. M.E. (Collaborative) programme in Project Engineering was started in association with Development Consultants (P) Ltd., Kolkata and in Industrial Production in association with GRASIM, Nagda.

The education in work-integrated learning programmes of BITS is characterized by person-centered approach with the rigour and standards at par with Institute's on-campus system of education. These programmes combine the flexibility and ingenuity of the off-campus educational system with the regular features of the on-campus education system. Also, the learning and evaluation

process draws upon the successful and established methodologies followed by the Institute. All the programmes follow a semester and a credit based system.

5.4.3 Thapar University, Patiala, Punjab

Thapar University is delivering engineering education since 1956 through conventional mode and is considered one of the prestigious institutes in India in engineering and technology. The University has also started Distance Education Programme in Engineering which is open for practicing professionals who hold a diploma in engineering and are employed. This provides an opportunity to these working professionals to renew their knowledge. The University admits a very small fraction of the working professionals in these programmes through competitive tests. Number of admission is restricted around 200 in each session. To ensure quality study material the University has published about 90 Self Instruction Materials written by their faculty and reviewed by faculty of IITs. The interactive lectures are delivered online through dedicated internet servers. The evaluation is spread over the entire semester through assignments, quizes and end semester examinations. The students carry out an industry project in the final semester in collaboration with their employers. The programme is considered rigorous and meticulous in admission, delivery and evaluation.

5.4.4 Indira Gandhi National Open University, New Delhi

The School of Engineering and Technology of the IGNOU has the responsibility of initiating academic, continuing and extension education programmes in the areas of engineering and technology. Since 1995 the School has developed several programmes aimed at increasing job potential and economic advantage to the learners. To fulfill its mandate, the School regularly interacts with employing agencies, professional bodies and industry so as to reflect educational and training needs of the targeted learners in the curriculum. The school practices participative and collaborative strategy by inviting different industries. The Self Instructional Materials are designed and developed with the help of experts drawn from various institutions of acknowledged expertise: IITs, National Institutes of Technology (NITs), reputed Universities and Engineering Colleges and Industry.

The University offers both short-term and long-term programmes leading to Certificates, Diplomas or Degrees, covering conventional as well as innovative programmes. Most of these programmes have been developed after an initial survey of the demand for such studies. They are launched with a view to fulfil the student's need for certification, improvement of skills, acquisition of professional qualification, continuing education and professional development at work place, self-enrichment, and diversification of knowledge.

The School has the following programmes:

- Bachelor of Technology in Construction Management, Water Resources Engineering and Mechanical Engineering (Computer Integrated Manufacturing)

- Bachelor of Technology, Advanced Diploma in Construction Management (ADCM)

- Advanced Diploma in Water Resources Engineering (ADWRE)

- Advanced Diploma in Computer Integrated Manufacturing (ADCIM)

- Diploma in Civil Engineering (Army Personnel) (DCLE)

- Diploma in Civil Engineering (General Candidates) (DCLE-G)

- Diploma in Mechanical Engineering (DME)

5.4.5 Yashwantrao Chavan Maharashtra Open University, Nasik

The YCMOU, Nasik, Maharashtra started offering technical programmes in Engineering w.e.f. 1996 when it launched Diploma level programmes in the areas of Communication Engineering, Computer Technology, Industrial Electronics and Instrumentation Engineering. In the year 2004 the YCMOU further launched 4 Diploma level programmes in the areas of Mechanical, Production, Automobile and Thermal Engineering. It also launched B. Tech programmes in the Marine, Electronics and Mechanical engineering in 2004. The dissemination of education is through blended mode. Support system included web based discussion forums. Cost-effectiveness of programmes is an added advantage. The intake of students in both the semesters of a year is approximately 10,000.

5.4.6 Karnataka State Open University, Mysore

The University offers technical programmes like Diploma in Engineering, B.Tech and M.Tech. For this purpose KSOU collaborates with institutions to conduct classes in the institutions/colleges recognized by AICTE and other bodies. Details regarding the programmes are not made available.

5.4.7 Offer of Technical Programmes by Technical Universities and Deemed Universities

There was sudden increase in the number of technical programmes after the year 2000 as a few Private and deemed Universities such as JRN Rajasthan Vidyapeeth deemed University, Udaipur; IASE Deemed University, Sardarshahr, Rajasthan and Allahabad Agriculture Institute now renamed as Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad - started offering programmes such as Diploma in Engineering, B.Tech and M.Tech programmes.

Many more Universities and Institutions have followed the suit. Some of them have even franchised the programme delivery and even established study centres in non AICTE approved Colleges. This subsequently became an issue for ensuring quality in technical/ professional programmes. Because of the high demand of technical and managerial expertise and the value of such degrees, the ODL mode has emerged as offering solution but in the process it has dented its credibility so much that employers have started ignoring their degrees/certificates.

5.5 The National Policy on Education, (1986) on Technical and Management Education

The National Policy on Education (NPE), 1986 provides that "Although the two streams of technical and management education are functioning separately, it is essential to look at them together, in view of their close relationship and complementary concerns. The reorganisation of Technical and Management Education should take into account the anticipated scenario by the turn of the century, with specific reference to the likely changes in the economy, social environment, production and management processes, the rapid expansion of knowledge and the great advances in science and technology".

As per the NPE "the infrastructure and services sectors as well as the unorganised rural sector also need a greater induction of improved technologies and a supply of technical and managerial manpower".

The NPE further lays emphasis on promotion of continuing education, covering established as well as emerging technologies.

The NPE (1986) also states that "as computers have become important and ubiquitous tools, a minimal exposure to computers and a training in their use will form part of professional education. Programmes of computer literacy will be organized on wide scale from the school stage".

It has put special emphasis on offering of technical and management programmes through distance mode. The NPE states that "In view of the present rigid entry requirements to formal courses restricting the access of a large segment of people to technical and managerial education, programmes through a distance- learning process, including use of the mass media will be offered. Technical and management education programmes, including education in polytechnics, will also be on a flexible modular pattern based on credits, with provision for multi-point entry A strong guidance and counselling service will be provided".

It further elaborates that "appropriate formal and non-formal programmes of technical education will be devised for the benefit of women, the economically and socially weaker sections, and the physically handicapped. The emphasis of vocational education and its expansion will need a large number of teachers and

professionals in vocational education, educational technology, curriculum development, etc. Programmes will be started to meet this demand. To encourage students to consider "self-employment" as a career option, training in entrepreneurship will be provided through modular or optional courses, in degree or diploma programmes. In order to meet the continuing needs of updating curriculum, renewal should systematically phase out obsolescence and introduce new technologies of disciplines".

As per the NPE, the All India Council for Technical Education, which has been given statutory status, will be responsible for planning, formulation and the maintenance of norms and standards, accreditation, funding of priority areas, monitoring and evaluation, maintaining parity of certification and awards and ensuring the co-ordinated and integrated development of technical and management education. Mandatory periodic evaluation will be carried out by a duly constituted Accreditation Board. The Council will be strengthened and it will function in a decentralised manner with greater involvement of State governments and technical institutions of good quality. In the interests of maintaining standards and for several other valid reasons, the commercialization of technical and professional education will be curbed. An alternative system will be devised to involve private and voluntary effort in this sector of education, in conformity with accepted norms and goals.

However, the AICTE, as a policy, does not recognize technical education through ODL mode except MBA and MCA. As a result, the AICTE has not felt the need to develop benchmarks for offering other technical and management programmes through distance mode. In fact, the AICTE policy to allow only MBA and MCA programmes through ODL mode does not seem to be in consonance with the NPE, 1986.

5.6 Need for alternative System:

Globalization and the advent of communication and information technologies have opened up many new possibilities for training and re-training of personnel working in industry. Many of the multinational companies want up-gradation of knowledge and skills of staff at work place. Distance mode has the potential to impart work integrated learning without disturbing normal schedule of work at the places of employment. Further, there are large number of employees, Diploma holders working in Govt. Departments, PSUs and other organizations and there is very little scope for such employees for vertical mobility. Distance mode can be used effectively to upgrade knowledge and skill of such experienced employees to graduate level and thus allow for their vertical mobility.

Use of only one media may not be adequate for delivery of technical programmes. Three basic requirements for technical programmes delivery are - organization of (a) theory courses, (b) interaction, and (c) practical components.

These three components can be incorporated in the programme by using SLM in hard as well as soft forms for theory component, face-to-face / e-learning for interaction and compulsory practical component for development of requisite skill. Practice at will can also be facilitated through simulations. E-learning provides all essential core teaching – learning components like interaction, evaluation and feedback. Regular face-to-face contact in form of counseling sessions during weekends or during off-time of colleges should be used for clarification and removal of doubts of learners. Laboratory experiments could be conducted in AICTE recognized colleges taking into account the physical infrastructure and human resource required for the purpose.

Conventional universities running such programmes are also making use of lectures and chunks of learning materials through ICT as a supplementary teaching/learning method. NPTEL and NMEICT are engaged in the development of such e-resources. Such quality course material through national expertise can easily be adopted by the Technical Education Providers. As conventional system is getting strengthened through technology enabled distance mode lectures and tutorials, it is only logical to expect that ICT enabled delivery in ODL system combined with face to face, counseling, tutorials and laboratory works will ensure quality in ODL system also.

Therefore, the mode of teaching/learning for the contemporary era cannot be exclusively in conventional or in distance education mode. It has to be a proper mix of the two which can be termed as blended learning. Having regard to the advent of ICT, developments taking place all around the world including in India and the vision enshrined in the National Policy of Education, 1986, a fresh look needs to be taken by the AICTE on offering Technical and Management Programmes through ODL mode.

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CHAPTER 6. :RECOMMENDATIONS

Perspective

6.1 Higher Education sector has grown significantly in scale and size but it is still unable to meet the growing demands for it because of many reasons including resource constraints. It is not possible to meet this rising demand through the capital-intensive conventional system of education only. The need for an alternative strategy to supplement the conventional system of higher education has been appreciated and accepted long back by the policy makers of the country. Through various policy and programme interventions, attempts have been made to promote Open and Distance Learning (ODL) system to facilitate the expansion of higher education sector for the fulfillment of aspirations of those who are deprived of pursuing it for whatever reason. As a result, the contribution of ODL to Gross Enrolment Ratio (GER) in higher education has risen to about 22%. But, a lot still remains to be done. With the increasing use of technology all over the world in providing learning support to ODL students, the Committee finds it appropriate to recommend well regulated expansion of ODL system in the higher education sector in the country during the 12th Plan period to help fulfill the aspirations of the seekers of knowledge and skill by enhancing the opportunities at affordable cost for the benefit of all those who have the desire to educate themselves further but cannot do so on a full time basis.

Goal and concerns for Quality

6.2 The Ministry of Human Resource Development has set a goal to achieve 30% GER in higher education by the year 2020. As per the preliminary estimate prepared by the NUEPA, it would require an investment of about Rs.9.5 lakh crores. The Committee is aware of the fact that the physical infrastructure created for imparting conventional education largely remains idle after the official working hours. Keeping this infrastructure idle and going for establishing new ones in conventional mode, firstly, would be a difficult proposition due to lack of resources and secondly, it would also tantamount to avoidable wastage of scarce national resources. AICTE has recently made provision for allowing second shift programmes at the graduate, post graduate and vocational and technical education through its approved institutions. The Committee recommends that every conventional university and institution, including technical and professional ones, should be encouraged to switch over to a dual mode of imparting education by offering ODL programmes in additional to the conventional programmes so that the already available infrastructure can be used as study centers for holding

counseling and practical instruction not only on holidays but on every day after the working hours. This will automatically increase the enrolment by 2-3 times. Starting ODL programme would require preparation of appropriate study material and appointment of coordinators and counselors in appropriate numbers. A centrally sponsored scheme should be devised by the Distance Education Council (DEC) to share the cost involved to encourage the conventional universities and institutions to start ODL programmes without delay.

6.3 The Committee is convinced that "Higher Education" means only and only "Quality Education", otherwise it loses its purpose and value. Eyebrows are often raised about the poor quality of education being imparted through ODL system, particularly, in respect of technical and professional programmes, which require development of certain skills through hands on practice. Presently, AICTE permits only MBA and MCA courses, that too, only if the Tripartite Committee (AICTE, UGC and DEC) approves them. The decision not to permit other technical and professional courses through distance mode is mainly due to their concern for quality. The Committee, after having heard all points of views on the matter, is of the opinion that quality is not a matter of concern in ODL system only. It is a matter of equal concern in conventional system as well, whether it is general, technical or professional programmes.

The Committee, therefore, feels that barring technical and professional programmes totally through distance mode will be against the accepted policy of Government of India of expanding opportunities for higher education and making it inclusive as an instrument of democratising education and making it a life long process. The inherent advantages of the flexibility to move from education to work and vice versa and innovativeness of the ODL system, so well suited to the diverse requirements of the citizens of the country, need to be harnessed in full for enhancing the productivity of the human resource.

Besides, Part VI of the National Policy on Education 1986 dealing with "Technical and Management Education" stipulates in para 6.6 in unequivocal terms that "in view of the present rigid entry requirements to formal courses restricting the access of a large segment of people to technical and managerial (sic. management) education, programmes through a distance-learning process, including use of the mass media, will be offered. Technical and management education programmes, including education in polytechnics, will also be on a flexible modular pattern based on credits, with provision for multi-point entry. A strong guidance and counseling service will be provided."

6.4 The Committee is very much concerned with the complaints about the quality of self-learning materials used by a few ODL institutions, inadequate infrastructure facilities at headquarters and study-centres, lack of proper student support services and delivery of programmes through franchisee leading to lowering of the overall quality of education and its commercialization. This has shaken the faith of the employer groups and also common people in the ODL system. The Committee is also aware of the limitations of the UGC or DEC or

AICTE or NCTE, in terms of necessary manpower and effective legal framework to reign in the foul players.

The Committee is, therefore, of the view that an effective regulatory system must be put in place before letting technical education through ODL mode is allowed extensively in all types of institutions. Before allowing technical and professional programmes through the ODL system, the DEC, in conformity with the AICTE norms and standards, will have to develop programme specific benchmarks, inter alia, for theory, tutorial/counseling and practical, infrastructure and manpower requirement. Once such system is in position, the DEC should open the ODL system to technical and professional programmes gradually to the extent it can monitor and supervise effectively, either through inspections or technological interventions, to ensure that the learner acquires necessary skill before the completion of the programme.

Need for a New Legal Frame Work and ICT support

6.5 The UGC Act, 1956 provides for the co-ordination and determination of standards in University system by the UGC. Initially, when the correspondence course started there was no regulatory framework outside the University system. The Statutory Bodies of the respective universities devised the institutional arrangements and delivery mechanisms. Later on, when the number of universities offering correspondence courses started increasing, the University Grants Commission, with a view to maintaining standards in distance education programmes, stepped in to issue Guidelines, Rules and Regulations from time to time. Till the enactment of the Indira Gandhi National Open University (IGNOU) Act, 1985, the UGC was the sole Regulator for the whole higher education system including the technical and distance education.

6.6 The provisions of the IGNOU Act suggest that the Parliament intended, for the purpose of regulatory arrangements, to treat higher education through open and distance learning differently from the conventional university system, in view of its unique characteristics. Therefore, while setting up a separate university, IGNOU, for imparting higher education through ODL system, the Act also gave the responsibility of development, coordination and determination of standards in the Open and Distance Education system to it, "notwithstanding anything contained in any other law for the time being in force". Accordingly, the IGNOU established the Distance Education Council in the year 1991 to discharge the responsibilities as a Regulator of the ODL system. It may be mentioned that unlike the UGC or the AICTE, the DEC is not a statutory body and thus does not enjoy powers to compel obedience to its regulations.

6.7 In 1987 the Government of India, by an Act of Parliament, established the All India Council for Technical Education (AICTE) with a view to ensuring proper planning and coordinated development of the technical education system throughout the country and the regulation and proper maintenance of norms and

standards in the technical education system. The AICTE Act does not specifically provide for distance education programmes. The AICTE Act significantly excludes universities from its jurisdiction, but it gives the AICTE the authority to enforce the quality parameters of technical education in these universities. Therefore, it is only reasonable to infer that the AICTE has the mandate to maintain the norms and standards in technical education through the ODL system. Gazette notification No. 44, F.No. 18-15/93-TD. V/TS.IV dated 1st March 1995 of Ministry of Human Resource Development, Government of India also supports this interpretation while providing that the degrees awarded through Distance Education by the Universities and Institutions of National Importance stand automatically recognized for the purpose of employment under the Central Government, provided it has been approved by DEC and wherever necessary by AICTE. In fact this notification has necessitated the approval of the DEC for offering any ODL programme.

6.8 In order to streamline the process of recognition as a single window system and to avoid the duplication of efforts by the three Regulators (UGC, AICTE and DEC) in respect of ODL programmes, DEC constituted a Joint Committee of the three bodies through an MOU. However, the MOU could not become fully operational, much less effective, due to lack of coordination among them. In order to facilitate better coordination, a Tripartite Committee of the Chairpersons of the UGC, AICTE and DEC has been constituted by the MHRD in the year 2010. This, too, does not seem to have delivered the desired results. Teacher Education programmes in distance mode also face almost similar problems and fate. The DEC has developed some norms and guidelines for offering programmes through distance mode. However, enforcing these norms and procedures remains a big challenge for them due to lack of adequate manpower and technological support. The resulting situation, in effect, leaves the field unregulated at least in some sectors.

6.9 In order to keep pace with the growing demand for recognition of ODL programmes, the DEC in the year 2007, decided to accord institutional recognition instead of programme specific recognition on the assumption that the appropriate academic bodies of universities/institutions would take care of the quality of education imparted. Its orders do not indicate whether a university/institution having recognition of the DEC for ODL courses, would require the approval of the AICTE for offering technical courses. On the basis of approval of DEC, many universities / institutions started technical education programmes without the approval of the AICTE. A large number of them "misused" the opportunity for commercialization of ODL system through unregulated expansion disregarding standards of education. The proliferation of such ODL Institutions, behaving like degree dispensing mills, has affected the credibility and acceptability of such programmes adversely. As a result, many employers have refused to treat ODL degrees at par with the regular conventional degrees. A statutory body like the Bar Council of India has gone to the extent of disapproving the First Degree obtained through ODL for eligibility to join the professional law course. In 2009 vide D.O. No. 6-7/2009-DL, the Government of India directed the DEC to immediately

withdraw permission given to various institutions to conduct B.Tech/BE programmes through distance mode and ensure that no student is admitted further in these courses. In spite of DEC's order to stop the B.Tech/BE courses and AICTE's repeated advertisement in the newspapers about non-recognition of these courses, it is reported that such courses are continuing to be offered by many institutions. It is interesting to note that there is no legal provision to take such institutions to task who offer ODL courses without recognition from the DEC. Even statutory regulators like UGC, AICTE and NCTE have not been able to take effective action against fake universities / institutions offering courses in contravention of the relevant Acts.

6.10 The Committee is of the view that inadequacy and ambiguity in the legal framework and inability of DEC to discipline erring institutions are the main reasons for lack of regulation in the ODL system resulting in some cases in poor quality of education. The Committee is aware that the enactment of the Prohibition of Unfair Practices in Technical Educational Institutions, Medical Educational Institutions and Universities Bill, 2010, the National Accreditation Regulatory Authority for Higher Educational Institutions Bill, 2010 and the proposed National Council for Higher Education and Research Bill will address all the above issues faced by the Higher Education System generally and technical and professional education in particular. There are some other immediate pressing issues affecting the regulation of ODL system adversely, viz., the propriety of one open University (IGNOU) controlling the standards of other open universities through statute created by itself, the legality of State Open Universities offering ODL courses outside the State territory, the legality of franchising of education etc, which can be resolved only through a Parliamentary intervention.

In view of the above challenges, the Committee recommends to establish an independent and effective Regulatory Authority on Distance Education, equipped with necessary powers and resources, through an Act of the Parliament to determine and regulate the standards of higher education including technical education through ODL and to promote and coordinate amongst the stakeholders for dissemination of quality higher education relevant to the need of the individual and society. This independent Regulatory Authority may be called the Distance Education Council of India(DECI). Eventually, when the NCHER Bill is passed, DECI will get subsumed into the proposed overarching Regulator along with other existing regulators, viz. UGC, AICTE, NCTE, etc.

6.11 A draft Distance Education Council Bill for the establishment of an independent Regulatory Authority is enclosed as Appendix-I to this Report. This enactment would simultaneously require the following amendments in the IGNOU Act, 1985 also:-

(i) Deletion of "and for the coordination and determination of standards in such system" from the preamble of the Act.

(ii) Deletion of "and to coordinate and determine the standards of such system," from Section 4 of the Act.

(iii) Deletion of Section 5 (2) of the Act.

(iv) Deletion of Section 24 (j) of the Act.

(v) Deletion of "and the Distance Education Council" from Statute 2 (1) and substitution of "," after the word "Board" by "and"; and

(vi) Deletion of Statute 28 relating to the Distance Education Council.

In order to avoid any confusion arising out of the multiplicity of command, the Committee recommends that DECI should have the sole responsibility to recognize the distance education programmes, including technical and professional ones. Use of ICT for developing a web-based repository of high quality self-learning material and other aspects leading to maintenance of quality in the ODL system needs to be built into the said system by appropriate legal framework.

Quality Benchmarks

6.12 It will be the duty of the proposed DECI to ensure that the nomenclature of the degrees proposed to be awarded through such programmes are approved by the UGC, the institute has the requisite recognition from the respective regulatory authorities, viz AICTE, MCI, DCI, etc. for the regular course in conventional mode, it is affiliated to a university, it has developed the self learning material of desired standards, it has a credible system of counseling, evaluation of assignments and examination, it has the necessary infrastructure including laboratories, library, class rooms, etc. and qualified counselors as per the relevant norms. No conditional or post facto recognition shall be granted by the DECI. While granting recognition for Diploma and Certificate courses, the DECI must also ensure that the programme content in terms of both, theory as well as practical, are in consonance with the standards of such courses offered by various State Technical Education Boards etc. so that credit transferability and flexibility of exit and re-entry are facilitated. Flexibility in learning and quality of learning have to go hand in hand to make the ODL programme acceptable to institutions admitting such learners to a higher education programme or the employer recruiting the graduates as the case may be.

6.13 Easily accessible high quality self-learning material and vibrant study centers are the two measurable elements of successful ODL institutions. Conventional system of maintenance of quality through expert inspections is not feasible. A national ICT backbone would enhance access and e-governance in ODL system and enable interactive learning and dissemination of knowledge through all modes i.e. print, audio- visual and internet based multimedia. DECI should collaborate with the National Mission on Education through ICT to avail

the web-based high quality educational resources being developed by it. It should also endeavour to develop a sharable pool of self-learning material.

ODL in Conventional Universities

6.14 A conventional university / institution will be granted recognition by DECI only for such ODL programmes, which are being offered through the regular conventional mode, and the syllabus and the evaluation for the award of the degree/diploma shall be common for both, the conventional and the distance mode. This does not mean that specialized self learning material, counseling classes, submission of requisite number of assignments by the distance learner and their timely evaluation by the university will be compromised in any manner. In order to discourage commercialization of distance education programmes, the Committee recommends that if the ODL programme is offered through study centers, then the institution will have to restrict its study centers within the statutory territorial jurisdiction of the relevant Act/Statutes governing it. The study centres should essentially have the necessary infrastructure and other facilities prescribed by the DECI. Franchising of study centers in private unrecognized colleges or organizations shall not be permitted. The State private universities may also be treated alike.

ODL in Open Universities

6.15 The Open Universities can be granted recognition for offering general, technical or professional degree programmes from its campus and study centres having necessary infrastructure and other facilities prescribed by the DECI. Before granting recognition, the DECI will ensure, inter alia, that the syllabi of various courses of Open Universities are not inferior to the model syllabi of the UGC in respect of general courses, AICTE in respect of technical and professional courses and of the respective Boards in respect of diploma courses and there is a credible system of evaluating the theoretical and practical attainments of the learner. UGC's decision not to permit Ph.D programme through distance education mode may be reviewed in the light of the National Policy on Education. However, the concern for quality behind such ban has to be addressed through a comprehensive and effective regulating mechanism and not by banning ODL mode for the degree.

ODL in Institutions Deemed to be Universities

6.16 UGC's decision not to allow institutions deemed to be universities to offer distance education programmes at all needs to be reviewed in the light of the National Policy on Education. However, the concern for quality behind such ban may be addressed through a comprehensive and effective regulation. An institution deemed to be a university established before the UGC Regulations,

2010 will be granted recognition by DECI only for such ODL programmes, which are being offered through the regular conventional mode, and the syllabus and the examination shall be common for both, the conventional and the distance mode. UGC Regulations, 2010 do not permit affiliation of colleges by deemed universities. The Committee recommends that the same principle may be applied for the opening of the study centres by the deemed universities as well, meaning thereby that these deemed universities may be allowed to operate study centres from their main and satellite campuses only, but not through affiliated colleges of other universities or franchisee centres.

On-line ODL

6.17 With the advancement of technology, the concept of territorial jurisdiction of the institution offering higher education through ODL system has become irrelevant, but the Committee is also conscious of the fact that in past, several institutions have franchised the delivery of programmes to many undeserving individuals / organizations, such practice with commercial motives has degenerated the teaching learning process to mere degree dispensing exercise. Therefore, the Committee recommends that if all the components, viz. admission, Learning Management System (LMS), counseling, submission of assignment and evaluation and final examination of the ODL programme are offered completely online, then there will be no restriction on territorial limits. For offering such online programmes, however, the universities including institutions deemed to be universities and other institutions will have to obtain prior approval of the DECI.

Equivalence of Degree

6.18 As the syllabi and the examination are common for the conventional as well as the ODL system in the dual mode institutions and the syllabi of the Open Universities are to be in consonance with the model curriculum of UGC / AICTE etc., the Committee recommends that the degree imparted through the ODL system should be treated at par with the conventional system both for education as well as employment purposes. However, for the purpose of record, the degree / certificate of the ODL learner should mention "through Distance Mode" or "through online" as the case may be on its face.

Interim Arrangement

6.19 The Committee is aware that passing of the proposed Distance Education Council of India Bill may take some time. Meanwhile, the existing ambiguity and uncertainty cannot be allowed to prevail and be exploited by the foul players of the ODL system. There is a moral dilemma before the DEC, a statutory body of an open university i.e. IGNOU, in acting as a regulator of the ODL system regulating other open universities. Before the commencement and even after some years of commencement of the IGNOU Act, the UGC remained the regulator in respect of

distance education system. Therefore, position of UGC vis a vis IGNOU as a Regulator is stronger and more acceptable to the whole university system including the open universities. Keeping all this in view, the Committee recommends that the Government should issue a policy direction/notification to UGC for assuming the responsibilities of maintaining standards in ODL System and creating a DECI like interim authority for the purpose. Needless to say that while doing so the UGC and the interim authority will utilize the framework and resources available with the DEC working under IGNOU. First of all the interim authority shall evolve systems taking into account the observations made in this report, viz. development of programme specific quality benchmarks in respect of all relevant parameters, system for on line application and processing, and disclosure of relevant information on the web site of the institution and the DECI, development of quality self learning material, credible system of counseling, evaluation of assignments and examination etc. Once the systems are in position, the DECI of UGC may start the recognition of ODL institutions as per the newly developed system and enforce norms and standards laid by it in the recognized institutions.

(Anant Kumar Singh)	(Ravindra Kumar Srivastava)	(Lalit Bhasin)
Joint Secretary, MHRD Convener	Sr.Advocate, Supreme Court Member	Sr Advocate, Supreme Court Member

(V.N. Rajasekharan Pillai)	(SS Mantha)	(Ved Prakash)
Chairman, DEC Member	Chairman, AICTE Member	Chairman, UGC Member

(N R Madhava Menon)

Chairman

Appendix

DISTANCE EDUCATION COUNCIL OF INDIA BILL

Annexure – I : *DISTANCE EDUCATION REFORM COMMITTEE*

F.No.6-20/2010-DL
Government of India
Ministry of Human Resource Development
Department of Higher Education
Distance Learning Division
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New Delhi, the 5th August, 2010

OFFICE MEMORANDUM

Subject : Constitution of a Committee to suggest measures to regulate the standards of education being imparted through distance mode in the country – reg.

1. During the past two decades there has been a rapid expansion of the Higher Education System in the country. The increasing demand of Higher Education needs to be understood in terms of the system's enrolment capacity, programme focus, regional balance, modes of delivery, quality and credibility etc.

2. In order to achieve and maintain the high growth rate of the economy, it is essential to broaden the base of the system of higher education in the country and simultaneously ensure maintenance of requisite standards. Given considerations of the availability of the limited resources in the higher education sector, the need to promote the open and distance education as also to regulate its standards, has become imperative.

3. The field of Open and Distance Learning (ODL) is expected to be a central pillar in education delivery. The evolution of information and communication technology (ICT) has had a positive effect on development of distance education and open learning.

4. The Open University and Distance education systems have expanded significantly over the years. Large numbers of courses and programmes are being offered by State Open Universities, Conventional Universities and Institutions declared as Deemed to be Universities under Section 3 of UGC Act. In order to increase the GER from the present level to 15% in higher education by the end of Eleventh Plan Period, Open and Distance Learning (ODL) system needs to be strengthened.

5. With a view to strengthen and broaden the base of the system of Higher Education in the country through ODL system, the Ministry of HRD has decided to constitute a Committee to look into the various aspects of distance education in terms of the overall coordination and determination of standards in the programmes of study through distance mode and to resolve issues of functional jurisdiction between the three regulatory bodies (UGC, AICTE and DEC) in distance education related matters. With the approval of Hon'ble HRM, the following Committee has been constituted.

1.	Prof. Madhava Menon	-	Chairman
2.	Chairman/Secretary, UGC	-	Member
3.	Chairman, AICTE	-	Member
4.	Chairman, DEC	-	Member
5.	Shri Lalit Bhasin, Sr. Advocate	-	Member
6.	Shri Ravendra Srivostava, Sr. Advocate	-	Member
7.	Dr. D.K. Paliwal, Dy.Edu.Adviser (DL)	-	Convener

6. The Terms of Reference of the Committee are as under :-

i. To harmonise the legal position in respect of distance education programmes in various disciplines are concerned between the UGC Act, AICTE Act and IGNOU Act.

ii. To recommend framework for approval of Distance Education Courses/institutions within functional jurisdiction of UGC, AICTE and DEC in dealing with the subject matters of distance education.

iii. To recommend outcome benchmarks for distance education systems which will facilitate equivalence with conventional modes.

iv. To recommend guidelines for processing of the approval of technical programmes through distance and mixed mode.

v. To suggest ways towards enhanced contribution of Distance Education to GER of 30%.

vi. The committee shall submit its report to the Ministry within a period of three months.

vii. The secretarial assistance to the Committee shall be provided by MHRD.

7. The expenditure towards TA/DA etc. of the members of the Committee will be borne by MHRD.

(D.K. Paliwal)
Deputy Educational Adviser (DL)
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1. PS to HRM
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Annexure II : Comments received from University Grants Commission

1. Legal position in respect of Distance Education Programme in various disciplines and coordination between the UGC, AICTE and IGNOU.

The UGC under its Act (UGC Act of 1956) has been mandated to take all such steps as it may think fit for the promotion and coordination of the university education and for the determination and maintenance of standards of teaching, examination and research in universities. In pursuance of this mandate, the Commission, apart from allocation and disbursement of grants to universities and other institutions under various schemes, monitors the maintenance of standards by way of regulations and guidelines.

While framing any Rules, Regulations or policy guidelines for academic standards, other statutory bodies concerned, are also consulted by the Commission, wherever necessary. However, the prime responsibility for setting the standards remain with the UGC.

In so far as the distance education is concerned the Commission framed regulations namely:

- UGC Regulations, 1985 regarding the Minimum Standards of instructions for the Grant of the First Degree through Non – formal/Distance Education.

- University Grants Commission (the minimum standards of instructions for the grant of first degree through non-formal/distance education in the faculties of Arts, Humanities, Fine Arts, Music, Social Sciences, Commerce and Sciences) (first amendment) Regulations, 1995.

Copies of Regulations were also provided.

The regulations framed by the UGC for grant of first degree through non-formal Education are mandatory in nature and every university, even if its courses are under the regulatory control of other council (s), has to abide by these regulations. Therefore, the UGC regulations have over riding effect on regulations framed by other councils including Distance Education Council.

2. Framework for approval of Distance Education Courses/Institutions within functional jurisdiction of UGC, AICTE and DEC in dealing with the subject matters of distance education.

After the establishment of Distance Education Council, as a unit of Indira Gandhi National Open University (IGNOU), the responsibility of regulating distance and open education was given to the Council. Approval of Distance Education Council for running the courses under distance mode was also made mandatory through a Government of India notification. A notification to this effect was issued by the Government of India in March, 1995 which also made it mandatory for universities to obtain the approval of the AICTE, wherever, necessary. A latest list of universities, as available on the website of AICTE, shows that only 9 universities (which include 7 private universities/deemed universities) are having approval of AICTE. However, a number of universities including the premier universities like Delhi University, which

were running distance programmes prior to the establishment of DEC continued to do so without obtaining the approval of DEC. The DEC was expected to create an effective regulatory mechanism before granting approval to the universities for distance education programme. However, it granted approval to literally every university which approached it. Not only that, approval was given to an Institution regardless of number and nature of courses. In certain cases, ex post facto approval was granted to universities and Deemed Universities which had been running their distance education programmes for years without the approval of the DEC.

AICTE and DEC evolved a monitoring mechanism. This culminated in a tripartite MOU and approval of the Joint Committee (of UGC, AICTE and DEC) was made mandatory for granting approval to the Institutions. Notwithstanding the provision of approval of Joint Committee, the EC continued and still continues to grant the approval to the universities on its own.

3. Outcome benchmarks for distance education systems which will facilitate equivalence with conventional modes.

The UGC regulations on non-formal distance education were notified in 1985 and since then, drastic changes have taken place in the area of Higher Education including distance education. After the emergence of Private Universities and self financed Deemed to be Universities, the concept of Distance Education has now been redefined by the private players who have opened large number of study centres at different locations in the country. These study centres operating like affiliated colleges, claiming themselves as off campus centres, runnig regular coaching and, in many cases, offering also hostel accommodation and charging exorbitant fee from the students. The students are made to believe that they will get the degree from the University as if they are regular students at the location of the University without any mention of distance education in their mark sheets, degrees or other documents. These study centers are managed and governed by the private parties and share of the revenue goes to the university who has lent its name to run such shows. Given this scenario, the quality of education being provided at these study centres is highly questionable. This situation demands immediate remedial measures to contain further deterioration and streamline distance education in the country. For this purpose, the UGC on its part had already issued directions to universities against franchising of degree education. Nevertheless, the franchising is still continuing and more particularly some deemed universities and state universities have, in collaboration with private parties, allowed a number of study centres. It has been observed that guidelines, because of lack of statutory backing are prone to be violated and are violated and manipulated. Therefore, there is an urgent need for making regulations to be published in the official gazette.

4. Processing of the approval of technical programmes through distance and mixed mode.

The UGC does not favour conduct of technical programmes or the programmes with field work or component of practical training through distance mode.

5. To suggest ways towards enhance contributions of Distance Education achieving to GER of 30%.

Increasing the Gross Enrolment Rate (GER) is an important target but should not be achieved at the cost of quality of education. The UGC is of the view that statutory mechanism for governing the distance education in the country has to be in place first. Till such time the regulations are framed, there should be a partial moratorium of offering distance education programmes. Further, the conventional universities should allowed to offer distance education programs only in such subjects which are taught at the University at UG and PG level in regular mode.

Annexure-III : Comments received from All India Council for Technical Education

Technical Education:

Technical education plays a vital role in human resource development of the country by creating skilled manpower, enhancing industrial productivity and improving the quality of life.

India's transition to a knowledge-based economy requires a new generation of educated and skilled people. Its competitive edge will be determined by its people's ability to create, share, and use knowledge effectively. A knowledge economy requires India to develop workers – knowledge workers and knowledge technologists – who are flexible and analytical and who can be the driving force for innovation and growth.

As per the report of the World Bank – 2006, to achieve the knowledge economy that I talked about, India needs a flexible education system: basic education to provide the foundation for learning; secondary and tertiary education to develop core capabilities and core technical skills; and further means of achieving lifelong learning. The education system must be attuned to the new global environment by promoting creativity and improving the quality of education and training at all levels.

Technical Education in this country is on a growth path. With more than 8000 Institutes in the Degree Sector, 2500 in the Polytechnic sector, and more than 1.5 million seats at the entry level in the degree stream, 0.5 million in the polytechnic stream, we have one of the largest Technical education systems in the

world. A host of ITI's in every State also cater to vocational education. A career path that provides a seamless growth from ITI's to Diploma to Degree to Post graduation is also available.

Today, a student who wished to get into a technical education program can do so. A few problems like finding the finances can be facilitated through a good student loan model. The Government's model of providing the same through setting up of a finance corporation is laudable in this context.

However the near total inclusivity has also put undue and tremendous pressure on the system to respond to the new expectations like finding a suitable placement for almost 1.5 million youngsters likely to touch 2 million in two years to come, graduating from our Institutes every year.

It would also be worthwhile here to note that a student with 40% minimum eligibility and 35% in some States, at the qualifying examination also gets into this system along with the student at the top of the ladder. A normalization of the process caters to common denominator and hence a fall in standards.

Our examination systems being what they are will also cater to common denominator that only aids in propagating more mediocrity in a system that is already mediocre. We know that mediocrity breeds only more mediocrity.

Hence we have a system that is extremely difficult to be high on quality metrics. The Industry would obviously employ the best of the lot. In the absence of an industry profile, the available job market in absolute numbers, vis a vis the available graduates, the mapping would always be incongruous.

It is worth noting here that there are 112 specialisations at the undergraduate level and 641 specialisations at the Post graduate level. About 140 specialisations exist at the Polytechnic level. An Industry cum job profiling for all these specializations would throw up many challenges.

New institutes, programs and new courses are all based on perception and perceived needs of few entrepreneurs, who prefer to set up institutes in the areas they choose with scant regard to the demographic needs, probably to raise their social status however much that perception may be flawed. The affiliating universities and the State Governments do not help the cause by not preparing the perspective plans for the regions in their jurisdiction. This results in a highly skewed growth of technical education with no bearing on either industry needs or that of the country's needs.

The net result of the above understanding is we end up with a large number of graduates who are unemployable. Are there enough jobs for every one graduating before raising the bogie of un-employability is a million dollar question which no one wants to answer?

Though many Institutes provide Quality education comparable to the best in the world, many of our institutes are vow fully short of facilities at all levels, be it in infrastructural or faculty both in required numbers and in their quality.

The employment sector needs to be profiled to provide information on job opportunities in various sectors in terms of numbers and the projected growth. We also need to identify potential employers i.e., industries and service sectors so that a meaningful mapping can be made on the availability against the need. I am sure the gaps would also throw up some interesting data like no job opportunities in certain areas and no candidates available for certain jobs.

Distance Learning in General

To provide opportunities for higher education to a large segment of population, especially disadvantaged groups living in remote and rural areas, adults, housewives and working people; many Institutes and Universities have started offering programmes through distance learning mode.

Earlier distance learning used to be sending few lessons in printed form for the students to read. Students were expected to do and submit assignments by mail and give examinations at the end of semester/year. Students are also allowed to complete Universities and colleges nowadays are using or may use the latest course delivery methods like the internet, streaming video, video conferencing, virtual labs, instructional design, interactive content, CD, video tapes, on-the-job training, etc, to create a learning experience. Most universities also don't differentiate between their regular engineering degrees and distance learning engineering degrees, making it a debatable option for those who can't accommodate a regular course into their schedule. With mobile communication and cameras available for PCs, distance education may take new dimensions and student may experience feel of class room while being at own home through internet and PC. However, these must be highly motivated individuals to learn at home through a distance mode.

As against the above theory, many of the districts and villages even today, are not connected through internet or connected through poor internet facilities. Notwithstanding video streaming, even data streaming is difficult in such places.

Keeping this in mind the Kothari Commission (1964-66) in its report made number of recommendations related to;

- Transformation of education system to relate to the life needs and the aspirations of the people.

- Qualitative improvement so that the standards achieved are adequate and are kept continually raising and become inter-nationally comparable.

- Expansion of education facilities broadly on the basis of man power needs with an emphasis on inclusive growth.

Class room Vs Distance

Classroom teachers rely on a number of visual and unobtrusive cues form their students to enhance their delivery of instructional content. A quick glance, for example, reveals who is attentively taking notes, pondering a difficult concept, or preparing to make a comment. The student who is frustrated, confused, tired, or bored is equally evident. The attentive teacher consciously and subconsciously receives and analyzes these visual and adjusts the course delivery to meet the needs of the class during a particular lesson.

In contrast, the distant teacher has few, if any, visual cues. Those cues that do exist are filtered through technological devices such as video monitors. It is difficult to carry on a stimulating teacher-class discussion when spontaneity is altered by technical requirements and distance.

Without the use of a real-time visual medium such as television, the teacher receives no visual information from the distant sites. The teacher might never really know, for example, if students are asleep, talking among themselves or even in the room. Separation by distance also affects the general rapport of the class. Living in different communities, geographic regions, or even states deprives the teacher and students of a common community link.

Hence a methodology is also required to profile the distant student, discuss distant student's development as learners; ways to improve distant learning.

Current Scenario

Indian parliament has enacted laws for discharging this responsibility through: the University Grants Commission (UGC) for general Higher Education, the All India Council for Technical Education (AICTE) for Technical Education; and other Statutory bodies for other disciplines. As regards higher education, through the distance mode, Indira Gandhi National Open University (IGNOU) Act, 1985 was enacted.

The history of distance learning or education through distance mode in India, goes way back when the universities started offering education through distance mode in the name of Correspondence Courses through their Directorate/School of Correspondence Education. In those days, the courses in humanities and/or in commerce were offered through correspondence and taken by those, who, owing to various reasons, including limited number of seats in regular courses, employability , problems of access to the institution of higher learning etc., could not get themselves enroll3d in the conventional face-to-face' mode 'in-class' programmes.

In the recent past, the demand for higher education has increased enormously throughout the country because of awareness about the significance of higher education, whereas the system of higher education could not accommodate this ever increasing demand.

Under the circumstances, a number of institutions including deemed universities, private universities, public universities and even other institutions, which are not empowered to award degrees, have started cashing on the situation by offering distance education programmes in a large number of disciplines, ranging from humanities to engineering and management etc., and at different levels (certificate to under-graduate and post –graduate degrees).

There is always a danger that in spite of close monitoring, some of these institutions may become 'degree mills' offering sub-standard/poor quality education, consequently eroding the credibility of degrees and other qualifications awarded through the distance mode. This is occurring at the same time that there is more and more pressure on individuals to earn degrees, not only bachelor's degrees, but master's and doctoral degrees as well. Jobs and promotions increasingly go to individuals with the greatest educational qualifications, even when individuals with the greatest qualifications, even when individuals' work experience may be more relevant to the job than is a degree. This creates pressures on individuals to obtain degrees, tempting some to take the easy route to a degree – the degree mill.

Prof. P N Tandon, in the report on "Report of the committee for review of existing Institutions deemed to be Universities (2009)" mentions that "For reasons difficult to fathom, many deemed universities ventured into the arena of distance education launching innumerable programmes without experience and without mandate. These programmes, though ostensibly were projected as outreach service to rural and remote areas, appear to be of dubious quality offered through a huge number of so-called 'study centres' spread across the country. In many cases, the number of students enrolled in the distance education mode far exceeded the number of students on-campus. Some of the deemed universities have gone as far as to enroll students in programmes in the distance mode leading to several engineering degrees, LLM, MPhil and PhD".

Despite these risks the significance of distance education in providing education and training cannot be ignored. Distance Mode of education has an important role for:

- Providing opportunity of learning to those, who do not have direct access to class room teaching, working persons, house-wives etc.

- Providing opportunity to working professionals to enhance their qualifications for career advancement and to enable them to shift to new disciplines and professions and

• Exploiting the potential of Information and Communication Technology (ICT) in the teaching and learning process; and

To ensure the promotion of open and distance education system in the country to meet the aspirations of all cross-sections of people for higher education, a well defined policy in respect of distance learning is laid down and a constitutional authority is created to undertake the job of coordination, determination and maintenance of standards of education through the distance mode.

Along with calculators and computer software in the 1980s, distance learning education made strides in the 1990s as a more advanced form of technology. distance learning represents a group of technologies that inter connects private and public schools, colleges and universities, industries, and many others. At the present level, it can be safely said that it has been so far very slow ot cause any impact on the learning at a level of which it is probably capable of.

Distance Education providers and their claims

Some of the Universities, who offer courses in distance learning mode, have to say the following for their programs:

Strayer University

Strayer University is a place where you'll feel comfortable because you will be with classmates who share your real-world perspective and enrich your studies with their professional and life experiences. The average age of a Strayer University student is 34, and virtually all of them are working full time while continuing their education. When you enroll at Strayer University, you'll join more than 44,000 students from across the United States and around the world who attend classes at one of more than 70 convenient campus locations or take classes online.

Kaplan University

All colleges can teach a subject. But what makes Kaplan University online degrees and distance learning programs unique is our emphasis on teaching you how to absorb and aply the real-world knowledge that will be meaningful in your professional life. When you're educated at Kaplan University, you don't just learn to memorize, you learn what you won't learn anywhere else… how to educate yourself… how to make the world work for you.

Argosy University

Our 100% online degree programs give you the freedom to decide when – and from where – you attend class. The most flexible and convenient of our learning formats, our online programs allow you to log into your classes any time of the day

or night. The most flexible and convenient of our learning formats, our online programs allow you to log into your classes any time of the day or night. The degree programs at our Sarasota, Florida location offer a distance-learning format that blends the flexibility of on-line learning with the power of face-to-face interaction in the classroom.

Capella University

Distance learning at Capella University offers flexibility, convenience, and the uncompromising quality employers have come to expect from Capella University. The university offers high quality distance learning programs that fit your schedule. As a Capella distance learner, you can access online course rooms using any Internet connection, anytime, anywhere. Round-the-clock access allows you to download assignments, read and contribute to class discussions, review faculty feedback, all at your convenience. The flexible schedule, uncompromising quality, and tremendous support services give up online distance learning resources that will help keep you on track toward your goals.

Westwood College

You can't put your daily life on hold while you work toward your career. We don't expect you to. Our online courses incorporate sophisticated audio/video technologies to ensure you receive an engaging virtual learning experience – one that echoes an actual classroom. We44 also offer free tutoring, other student services and computer support along with a constant focus on career development.

Colorrado Technical Institute

Suppose you could have access to your studies, academic files, classmates, instructors and advisors any time and anywhere you can logon to the Internet. These are the things that advanced and emerging technologies have enabled us to create at Colorado Tech Online; the amazingly interactive, experientially immersive Virtual Campus of the Colarado Technical University learning community.

No further statements are really essential to outline benefits of distance learning. However, it needs to be debated that whether learning in distance mode is possible in any discipline.

Education in Engineering & Technology

In India, Education in Engineering & Technology is provided at different levels. Trade level vocational education is provided through it is. These are generally short term programs providing trade proficiency certificates. Next level of education is provided through polytechnics where the qualifying students are awarded Diplomas in specific engineering disciplines. The curricula and delivery methods are as recommended and approved by respective state level Boards of Technical Education. Subsequent level of education is University level education,

both under graduate and post graduate, granting degrees to the qualifying students. At University level, further research is also undertaken and the students are awarded PhDs. The current system of education provides students qualifying at one level to seek admission to the programs at next level and continue the education till one gets highest qualification the system can provide.

Education at each of these levels provides an opportunity for earning to an individual and depending on personal and family needs; one would either start earning or continue with the education at next level. All those who start earning, always feel a need to upgrade their qualifications so as to further their careers.

Gross Enrolment Ratio

The **gross enrolment ratio (GER)** or **gross enrolment index (GEI)** is a statistical measure used in the education sector and by the UN in its Education Index. The GER gives a rough indication of the level of education from kindergarten to postgraduate education – known in the UK and some other countries (mostly in the Commonwealth of Nations) as primary, secondary, and/or tertiary – amongst residents in a given jurisdiction.

In the UN, the GER is calculated by expressing the number of students enrolled in primary, secondary and tertiary levels of education, regardless of age, as a percentage of the population of official school age for the three levels.

Example

Locale A has 9,50,000 pupils enrolled in education in the academic year 2005/06.

Locale A has 10,00,000 pupils of school age.

GER = number of actual students enrolled/number of potential students enrolled

GER = (950,000/1,000,000) = 0.95 = 0.95 * 100% = 95%

GER in India

The GER in the age group of 18 – 24 is about 13%. This GER is a summation of individual GER's in various disciplines like Arts, Science, Commerce, Engineering, Fine Arts, Social Sciences, Liberal sciences, polytechnics, distance Education, Vocational education, medicine Para Medical, Law etc.

The objective function that defines the above can be written as

X8P1 + X2P2 + X3P3 + X4P4 + X5P5 + X6P6 + X7P7 + X8P8 +…….+ XnPn = GER

XiPi i = 1 to n, i = Program No.

Where X is Program like Arts, Science, Commerce, Engineering, Fine Arts, Social Science, Liberal sciences, polytechnics, distance Education, Vocational Education, medicine, Para Medical, Law etc.

P is the influence factor of X on GER and the value of P varies between 0 and 1

For any meaningful estimation we need to identify the current influencing parameters P of each of the programs on the cumulative GER.

Read this for example

The current enrolment at IX and X class = 290 million with a pass figure of 116 million

The current enrolment at XI and XII class = 167 million with a pass figure of 79 lakhs

Enrolment for B.Sc is @ 5.0 lakhs at first year level (Figures as in 2006-07)

Enrolment for B.A is @10.0 lakhs at first year level

Enrolment for B.Com is @ 4.5 lakhs at first year level

Enrolment for Medicine is @ 1.0 lakhs at first year level

Enrolment for Technical Education is 8.0 lakhs at first year level

Enrolment for Distance Education at first year level averaging at 3 yrs programs is @ 13 lakhs

Enrolment for Vocational Education is @ 6.0 laks.

Hence a large number of students are either not completing XII or have dropped college after XI:

These are potential Distance learners or potential entrants to Skill based Vocational Education. Prudence informs that Distance learners may eventually possess a degree that may or may not fetch them a job. Vocational Education, since linked with the Industry needs may fetch a job, and if properly dovetailed with the formal education may even fetch the student a Degree or a Diploma in the appropriate specialization.

It is also a fact today that there remain vacant seats in Engineering Technology to the extent of 10% - 15%

Hence a GER solely estimated for Engineering /Technology would technically be almost 100%.

In such a situation, in order to enhance enrolment, a pragmatic approach should be:

- increase enrolment in all other disciplines so that cumulative GER would increase

- increase enrolment at IX, X, XI and XII classes. (Add more schools)

- Reduce drop outs at IX, X, XI and XII so that feeder numbers at all levels would be increased. (Training, counseling and provide financial models)

- Increase the pass out rate at IX, X, XI and XII so that feeder numbers at all levels would be increased. (Extra coaching, counseling to both the students and their parents, and provide Financial models)

- Increase enrolment at the Distance mode of learning in areas which aid in entrepreneurial activities. (Separate studies need to be done)

- Increase Vocational Education in a massive way by creating a bridge integrating the School education with the University education so that it becomes a way of life for an aspiring student and provides him multipoint entry and exit to and fro the vocational education, formal education and the job market.

In the absence of a robust job market, and the problem of lack of quality teachers in our day colleges compounding the problem, and if a huge number of distance learning graduates would come into being, and if for example they were to occupy the vacancies that exist, would the quality in education be guaranteed when everyone has been saying that the general quality in technical education is on a downward swing at the moment?

Distance learning in Engineering

The doubling period of engineering knowdege is estimated to be a decade or less, depending on the field and specialization. Hence, the engineering one will learn at university will only be the basics, because as a professional engineer, one will have begun a life-learning experience. The value added teaching learning methods can aid him in this process.

More and more jobs are becoming knowledge intensive, college degrees are now required in many occupations that did not previously require even diplomas. These people look for avenues where they can upgrade their qualifications while working so as to keep supporting their families. However the important point here is to understand that the way our systems are structured today, not everyone can aspire for a Degree or a Diploma nor is it necessary.

Distance learning in India

Over the years, a good deal of expansion of education facilities took place, but it was at the expense of quality. The expansion led to formation of various bodies and authorities which led to further chaos. In spite of the massive expansion, the system still could not provide access to the entire population which was growing at much higher pace. Setting ujp of the facilities and organizing faculty and staff became more and more difficult. This necessitated starting of distance learning programs by various universities. The growing number of students enrolling for these programs at number of universities shows their popularity and need.

The education in science, engineering and technology courses provides very exciting opportunities to the students to explore the nature and exploit the natural resources for the betterment of life. The entire learning happens through constant interaction, heavy exchange of ideas and lots of experimental work. Higher and University level education is expected to include good research and such research is possible only in the heavily equipped laboratories. In distance form, students tend to work on virtual models and simulations which may not find any practical use. Studies in basic and applied sciences and engineering & technology are simply not possible in distance mode. Except in the area of Information Technology, any of the core engineering area the basic learning can still happen only in class rooms and more so in laboratories. The distance mode still can be used for working professional to upgrade their knowledge which is basically a build up of the advanced knowledge on the core knowledge and competency achieved in traditional mode.

Many Technical degrees offered today in many of the conventional as well as open universities are below standard and far removed from the claims they make.

Distance learning in other countries

The survey of Universities across the world shows that master's programs available for most engineering branches and their specializations through distance learning are accredited at only a few Universities or nor accredited at all. Some distance learning programs are offered when students have prior experience and credits from some other undergraduate engineering program.

Some of the universities offering ABET accredited courses through distance education offer hybrid courses (not conventional engineering programs), with some element of on-campus study like one at University of North Dakota or California National University.

Australian engineering courses are starting to focus on the development of generic attributes, allowing more flexibility in student learning styles and study environments, making increased use of modern information technology-based

educational tools, and presenting a more holistic view of engineering and it's interaction with society.

One example of a successful distance learning engagement is between Beihang University and the University of Washington with an algorithms course. The pedagogical model for this course was active learning using technology to enhance to student and student to teacher interactions.

All coursework is delivered through the "UF Edge" a technology intensive system that records and posts on-campus lectures that provides off-campus students with identical materials as on-campus students. Some programs require proctored examinations and a final on-campus oral examination.

University of South Dakota (UND)'s distance engineering degree program prepares a student for the responsible practice of professional engineering and provides with the necessary skills to advance a civil engineering career. The student receives a well-rounded education that emphasizes creativity, critical thinking, and communication skills.

The Sloan Consortium found that complete online general degree programs are offered by 34 percent of institutions. Among public institutions, 49 percent are offering full online degree programs 80 percent of public and 37 percent of private institutions offer both online and blended programs. For profit institutions expect to increase their online programs more rapidly than any other type of institution, anticipating an increase of more than 40 percent.

All these are examples of Universities that have completed a great amount of research into learning methods and pedagogy and have provided distance learning models for some selected engineering courses and not complete programs. However it is also a fact that distance learning modes can at best be add-ons to enhance learning rather than substitute a robust class room teaching where applied sciences are involved.

Recognition of distance learning degrees

Truly no educator can argue against a legitimate teaching method that highly motivates students to learn the subject matter. This is possible only if the learning material provided to the student is of very high quality, very high motivation on the part of student leading to sincere self study and work on exercises. For the former, no good faculty is available who have experience of both the subject matter and also of technologies in which they need to communicate in today's world. They also lack the vision to foresee the developments and an urge to continuously upgrade their knowledge and the learning material.

Accreditation

Quality assurance and effective Quality assurance models can play a decisive role in modernizing Distance Education and training and improving performance and attractiveness, achieving better value for money. However we should realize that there is a need to increase Distance Education responsiveness to changing labour market demands, increasing the effectiveness of Distance Education outcomes in improving the match between education and training demand and supply. Across the country, we also need to achieve better levels of employability for the workforce and to improve access to training, especially for vulnerable labour market groups.

"Accreditation" is a process of external quality review used by higher education to scrutinize colleges, universities and educational programs for quality assurance and quality improvement.

Frequently, accreditation and certification are used synonymously and what is called accreditation in one country might be called certification in another. They are both about external verification of quality but they have a slightly different focus. Certification is about compliance with the standards, rules and criteria as defined by a methodological framework for quality assurance, such as the ISO-9000xx standards. Accreditation normally will encompass certification.

"Accreditation" from an accreditation mill can mislead students and the public about the quality of an institution. In the presence of degree mills and accreditation mills, students may spend a good deal of money and receive neither an education nor a useable credential.

Concluding remarks

Though distance education is an alternate mode of delivery of education, a B.Tech or an M.Tech programme that is offered in the conventional mode when offered through the distance mode lowers quality. Applied sciences are supported by 40% to 50% of practical component and rigorous training. Falling standards in the regular mode of delivering technical education would go for a free fall if we were to institutionalize this model.

A country that survives on basic tenets of democracy would find no way of differentiating the degrees awarded in the conventional mode and distance mode and would make no discrimination in the principle of equal opportunity to employment paving the way for a free fall in standards.

Undoubtedly today we have access to other learning models than the synchronous ones. We have good Computer Based Training tool (CBT)s and many are being developed. Having said this, I believe that teaching is a performing art. Teaching conceptual courses that need training on real machines cannot be substituted by CDs and Computer learning.

Needless to say, learning to swim or nursing to inject, where the orientation and position of the needle is so very important for minimal tissue damage and more effective drug delivery, from a CBT tool is fraught with dangers.

Developing a good CBT needs excellent domain knowledge, appropriate technology to capture the same and a great presenter who can cull out the principles and essence of the lecture. The use needs to be equally articulate and possess higher-order thinking skills to grasp the meaning that is therein. These add-ons can certainly value add to class room teaching. However they can substitute the class room learning only at the expense of quality and before long we would realize, the damage that would be caused would be difficult to reverse.

As a large nation our challenges are many. But so are opportunities in it. According to a study conducted by Confederation of Indian Industry and Boston Consulting Group (CII & BCG) India has a large population base of 1.14 billion with demographic shift in favor of working age group (15-59 years) while the overall population is projected to grow at 1.4% over the next five years the working age is expected to grow at 2.15%.

If the present trend continues, 109 million persons will attain working age during the period of 2007-2012. The net addition to workforce is, therefore, expected to grow to 89 million of which around 13 million are likely to be graduates/post graduates and about 57 million are likely to be school drop outs or illiterates. A significant share of incremental demand is likely to be for skilled labour – graduates and vocationally trained people are expected to account for 23% of incremental demand by 2012. The study further estimates that India is likely to increase deficit of 5.25 million employable graduates and vocationally trained workforce by 2012. Hence focusing on vocational education is of primary importance.

The present exponential rate of change in all walks of life has brought in increased uncertainties. Almost everyone is convinced that future is not just simple extrapolation of the present on the basis of the past. In such circumstances being innovative is the key for success. Science involves in understanding and explaining the naturally occurring phenomena, while engineering is concerned with doing, realizing and implementing. Thus, the aim of engineering education should always be the integration of knowledge, skills, understanding and experience to continuous experimentation.

The modern day working in engineering is hindered by narrow specializations, inability to work at interfaces between traditional disciplines and lack of team approach. Increased globalization has brought in more consumer concerns like increasing quality at lesser costs.

The developments in developing countries will solely depend on adoption and adaptation of modern technologies and managing them with advanced managerial tools.

At a time when technical competence of the highest quality is called for, the system should provide for right methodologies so as to improve learning, and probably distance learning does not seem to be fit the bill. In today's fast changing world, the nation's competitiveness will depend largely on the skills of tomorrow's engineers. Engineering as taught through distance mode would be more of science education devoid of characteristics of engineering as it is practiced.

As mentioned by Professor K. A. Padmanabhan, director, IIT Kanpur, delivering a viable, self-sustaining technical culture in educational Institutes is also of the essence. He gives an example of the former USSR that produced the most narrowly trained specialist technologists is a case in point. In spite of the technical brilliance, a lack of use-friendliness in products and the absence of safety and ecological concerns characterized the system.

Engineers are involved in planning and designing, manufacturing, constructing and manaing technological activities of our society, an engineer interprets our societies technological needs, devises solutions and make them happen. The work that engineers do impacts directly on the quality of everyone's day to-day life, and contributes markedly to the future prosperity of our community.

Through the class room/face to face education imparted there is a certainty that the students completing the program satisfactorily, will

- Gain the knowledge and skills required to analyze and solve problems related to the discipline

- Design and conduct experiments, as well as analyze and interpret engineering data.

- Receive the broad education necessary to understand the impact of engineering solutions in a global, societal, and economic context.

A change which seeks to produce world class engineers who will be able to tackle the challenges of the future, and enjoy the excitement of making engineering contribute to a Better life for our global community needs to be looked at in the right perspective. What is to be debated is whether in the distance learning mode, however sophisticated it may become, is likely to produce a degree holder or not who can contribute meaningfully to real time systems.

In their quest for higher education and training, students and training, students and the public may encounter "degree mills" – dubious providers of educational offerings or operations that offer certificates and degrees that may be considered bogus. They may also encounter "accreditation mills" – dubious

providers of accreditation and quality assurance that may offer a certification of quality of institution without a proper basis.

Typically, however, programs can be intended for students who have completed a considerable number of college-level courses, perhaps at a number of institutions, but have not put these credits together to complete a degree.

The engineers who undergo training through distance mode may present a threat to the society and its protection, health, safety or well-being.

In conclusion all the pros and cons need to be weighed judiciously before making available Engineering / Technology programs available through distance learning mode or even in a hybrid mode, considering the diversity the Country has and the propensity of people to misuse a paradigm that could otherwise achieve great benefits for the technological growth of this Country.

Annexure IV: Comments received from Distance Education Council

- **To harmonize the legal position in respect of distance education programmes in various disciplines are concerned between the UGC Act, AICTE Act and IGNOU Act**

IGNOU Act 5 (2) enjoins upon it the responsibilities to promote, coordinate and maintain standards in Open and Distance education system. IGNOU carries out these functions through DEC through its Statutes 28. In none of the Acts if UGC and AICTE, the responsibilities for maintaining standards in open and distance education system is mentioned. Consequent to it, all the approvals relating to distance education system should be a single window system approved solely by DEC.

Even for professional programmes such as MBA and MCA, the responsibilities should be vested with DEC, which will develop norms and guidelines to prescribe requirements of faculty, infrastructure, library and other facilities including software for IT programmes in collaboration with AICTE and UGC.

However, for technical and professional programmes, the AICTE Act 10 K empowers it to maintain the standards in technical education in collaboration with other agencies/bodies. This clearly shows that even for technical education programmes, the AICTE may take specific suggestions in this respect of DEC to formulate guidelines for offer of distance mode programmes. Infrastructure and other facilities for offer of technical programs including provisions at Study Centers, evaluation of self learning materials, methodology for delivery of programs and other aspects should exclusively be decided by DEC.

The implementation of the guidelines will be the responsibility of Distance Education Council. All approvals to be done by DEC for general and professional programmes in terms of guidelines developed programme-wise.

Process of approvals – General/Professional programmes

All applications to be submitted to DEC, which will evaluate it for its suitability and viability for offering through distance mode fulfilling all the requirements needed for a programme.

For technical and professional programmes, AICTE accords its approval at undergraduate and post graduate level. DEC may devise norms for offer of technical programmes at Certificate and Diploma level independently in consultation with AICTE.

However, for undergraduate and post graduate programmes in technology, AICTE's expertise is needed. The applications may be submitted to DEC, shich may forward to AICTE. However, the final approval will be accorded by the DEC.

- **To recommend outcome benchmarks for distance education system, which will facilitate equivalence with conventional modes**

The 70% core curriculum is same as offered by UGC and AICTE and 30% theory as per provision of UGC may be allowed to be used by Open Universities and Directorates of Distance Education in conventional universities. For distance education institutes of conventional universities, the same examination as conducted for face-to-face regular teaching and practical works also inconsonance with that of regular programmes be followed rigorously. In Open Universities, the examination by each independent university is as per its course and curriculum with Wightage of practical wherever applicable as recommended by AICTE and UGC.

- **To suggest ways towards enhanced contribution of distance education to GER of 30%**

Reaching grass root levels for access to education will play a key role in enhancing GER. Erecting infrastructure and adding to educational institutions is an expensive means. Employing existing infrastructure, available resources and expertise and sharing of resources is a cost-effective model.

Community colleges wherein community initiative to impart skill development courses need to be legalized. IGNOU has instated a Scheme of Community Colleges' to offer associate degree. These colleges generally give trainings and education in areas that crucial to the society and help I earners achieve skills for earning bread.

Convergence Scheme of IGNOU has given impetus to education to students who want to get education through the college in their area or college of their choice, but were unable to get access due to tough competition. The available laboratories, teaching staff, library and classrooms are optimally used when these are free. No extra burden on developing infrastructure-education opportunity to all – a win-win situation.

Industry – educational institution linkages – Industry may be a production or service industry, need trained personnel. On the job training specific to the industry can be arranged by institutions. There is a possibility of absorption of trainees on completion of the course or elsewhere in similar workplaces.

Annexure-V: Minutes of the Consultative Committee Meeting-I

with
Providers of ODL in Private Sectors namely Private Universities, Deemed to be Universities and Institutions held in Bangalore on 24.01.2011

The following were present:

A. Members of Prof Madhav Menon Committee

1. Prof. N.R. Madhava Menon	-	Chairman
2. Prof. V.N. Rajasekharan Pillai	-	Chairman, DEC
3. Prof. S.S. Mantha	-	Chairman, AICTE
4. Sh. A.K. Singh	-	Joint Secretary, MHRD

Prof. S. Thorat, Chairman, UGC and two legal members of the Committee Shri. Srivastava and Shri. Kapoor could not attend the meeting.

B. Representatives of Institutions Invited

The list of representatives of Private Universities, Deemed to be Universities and Institutions is given in Annexure-1.

A meeting of the Consultative Committee constituted by the MHRD to frame regulations for distance education with private providers namely Private Universities, Deemed to be Universities and Institutions was held on 24.01.2011 at TERI, Bangalore to elicit opinion and views on benchmarks for Quality Assessment, regulatory framework for processing and approval of technical programmes offered through distance mode and measures for enhancing the share of ODL in GER within the regulatory frame work.

The meeting was spread over three sessions namely:

Session-1: Outcome benchmarks for ODL Systems for equivalence with conventional mode – Issue of Quality Assessment

Session – II: Guidelines for processing of approval of technical programmes through Distance and Mixed mode.

Session - III: Regulatory Framework for Distance Education Courses/Institutions for Enhancing the share of ODL in GER

The Chairman, DEC in his opening remarks said that MHRD constituted a seven member Committee to frame regulations to scale up higher education

assuring quality. He further elaborated that there is enhanced interest of Institutions to start offer of programmes through distance mode including online. As the number of Institutions and programmes offering distance mode becomes more assuring quality becomes important.

Initiating the discussions, the Chairman of the Committee said that Chairman, DEC delineated issues related to quality concerning to distance education in a limited sense and also drew the attention to the five legislations initiated by MHRD to address the concern and issues related to quality. These are in respect of

- Accreditation of programmes and Institutions
- Institutional malfeasance
- Foreign Education providers

He further informed that the bill on Higher Education Commission and Research intends to give complete autonomy to Institutes to offer programmes and to initiate self regulatory measures to assure quality. There is need to enhance GER from 15 to 40%. Increasing access and equity alone through regular conventional system is not possible, as it requires more infrastructure and more number of class room teachers. Development of infrastructure will take time and alternative modes need to be looked into.

Distance Education at present has approximately 22% of enrolment in higher education and attempts need to be made to increase it to 50%. For distance education to absorb and enhance enrolment, necessary regulations need to be put in place for quality assurance. There should be limited regulations – avoiding duplication by other agencies. He also stressed that "complete autonomy to Institutions with transparency will help to avoid malpractices". Autonomy may also lead to self enhanced distance education. There are several problems and deficiencies in the existing system and the purpose of this meeting is to suggest measures to increase the enrolment, enhancement of quality and GER. The key question is Quality while considering measures for GER.

There is great expectation from Private providers of distance education. Every form of distance education has so many variables. Some of these institutions feel dissatisfied with quality control put in place by DEC. DEC has been making sustained effort to maintain standards in the system with limitations.

The enrolment in distance education has shown considerable increase in the recent past and its strength and weakness need to be assessed properly. Upgraded technology infrastructure may be encouraged to launch new programmes and

increase enrolment. Quality makes any education relevant. The Institutions should have

- Academic Resources
- Student Support Services offered and monitored properly
- Technical infrastructure and back up system to avoid it being outdated
- Proper Assessment and Accreditation process in place before launching a programme

IGNOU is well recognised for providing quality education using self learning materials, information and communication technologies, adequate student support services. State Universities have poorly written study materials and some of them also franchise programme delivery. There are expectations from Government to frame policy and procedures for regulating distance education and there may be promise in terms of self regulation. There is need to develop clear and explicit, quantifiable, measurable amount of quality as in case of face to face programmes.

Joint Secretary, MHRD in his remarks invited suggestion and measures to provide quality higher education to learners who could not join conventional system. He further emphasised that Government wants quality education only and nothing short of it. One class having more than 40 students with only one counsellor may not be sufficient to attend to queries of all learners and thus it raises concern about the quality and maintaining it. Government is considering full autonomy to achieve desired outcome. Education drives prospect of employment. Proper and adequate measures need to be put in place to achieve these objectives.

Chairman, AICTE in his remarks said that distance learning in different forms is different paradigm and different from conventional system. Both input and output are different than conventional system and general process of delivery of programme is followed in distance education. Distance education came up due to lack of facilities in conventional system to meet the increased enrolment. Distance education also offers programmes to enhance employability of learners. Time and again distance education is equated with conventional education, quality aspect of learners in output and learning process and its relation with industry to meet expectations of industry is important.

This was followed by presentation by participating universities and Institutions about enrolment and programmes. The participating Universities and Institutions have varying enrolment from 1500 in case of Institution, offering MBA and MCA programmes only and Universities having 1,80,000 enrolment offering more than 50 programmes through a network of over 2000 study centres.

Subsequently, the session wise response and feedback were elicited from all the participating Universities

Session – 1: Outcome benchmarks for ODL systems for equivalence with conventional mode-issue of Equality Assessment.

The following points were made out:

- Mixed mode for distance education including SLMs, online and web based may help to increase outreach and ensure quality.

- Limited intake per study centre per programme may help to ensure quality and may also provide better opportunities to address the learner problems. Institutions may prepare road map with rigour for various processes beginning with admission, student support, examinations and limit the number of students intake

- Scaling up distance education with limited number of admissions will not be viable and the institutions with higher enrolment may find it to offer programmes.

- Fee charged in distance education less than conventional system may be considered as one of the criteria to regulate the system

- Pass percentage may be considered as a good criteria for outcome. However, for flexible system pass percentage may not be sole criteria

- Programme offered and conducted in collaboration with industry may be encouraged as it helps both in employment and proper delivery of programmes for work based learning

- Entrance examination may be made mandatory for institutions admitting large number of students for professional, vocational programmes to act as a filter at input level.

- Technology mediated learning with good contents and subject to peer review may be helpful in increasing the GER and may also help to facilitate counseling at study centres

- Bachelor education should be given more emphasis for increasing the GER

- The number of students may be limited to 60 per class for better feed back to the learners during counseling session.

- Norms prescribing parameters for technical/professional programmes may help to ensure quality as these are presently not available.

- Specific benchmarks for online may also be evolved to maintain quality

- There is more diversity in distance mode of education than that of conventional system. Standards and outcome may be different for different types of programmes and institutions. The issue of quality should be linked to Accreditation.

- Programmes aligned with academic requirements of learners and industry may be encouraged to assure quality. Leveraging infrastructure from industry may be considered.

- Outcome of a programme resulting in employability and career motivation may be considered as a benchmark

- Regulatory system to check the process is important and need to be evolved.

- Internal audit system by institutions may help to maintain quality

- Duplication of efforts to develop materials may be avoided by adopting / adapting programmes from other Institutions

- Technology is not only component for enhancement of GER, other components such as Bachelor and PG programmes with proper delivery mechanisms may be encouraged to GER.

- Accreditation not approval of programmes may be given preference as it brings transparency in the system

- Autonomy linked with accreditation may be a good tool to ensure quality

- For transparency accreditating agencies to accredit different accreditating agencies/bodies may be evolved

- Accreditation may be made mandatory to ensure minimum infrastructure, staff etc. and competitions among institutions will play key role in maintaining quality

- Institutional autonomy with internal Governance system and course wise accreditation by accreditating agencies will help to make the system vibrant and quality oriented. Necessary guidelines to be prepared by concerned Apex bodies.

Session – 2: <u>Guidelines for processing of approval of technical programmes through distance and mixed mode.</u>

The discussion was initiated by Chairman, DEC and Chairman of the Committee. The following points were put forward:

- AICTE has granted approval only for two programmes MBA and MCA only till 2007

- There has been consistent increase in the number of institutions resulting in increase of GER after 2007 and number of institutions seeking approval from DEC for professional/technical programmes

- Despite UGC recommendations an University in AP has enrolled more than 1500 Ph.D students without adequate staff facility raising serious concern about dilution of standard and mass production of degrees

- DEC used to grant institutional approval only. AICTE-UGC-DEC signed an MoU in May 2007 to streamline approval of professional/technical programmes and to prepare base for work integrated learning. Subsequently, programme approval was initiated

- It was also suggested that a 4-5 members committee may be constituted to look into all aspect of distance mode. It is important to note in this regard that National Mission of Education through ICT has a large number of projects for developing distance education programme, which are mostly technology oriented programme

- There should be restriction on the number of seats per study centre as it is contrary to basic philosophy of distance education

- The DEC is allowing programmes to be offered by Institutions as per Acts and Statutes of the Central and State Govt. Universities. However, in case of deemed university it is as per guidelines of UGC on distance education. Based on AICTE recommendations, MHRD has asked DEC not to grant approval for any Engineering programme and also has restricted intake as prescribed by AICTE

- Chairman, AICTE said that there are different categories of institution and its view is that Technical Education can't be offered through distance education even with enhanced application of IT. Face to face programmes may be considered as alternative to augment problems of offering technical programmes by using existing facilities of institution beyond normal duration.

- It was pointed out that an University established by an Act of Parliament, State Legislator, Private University and Deemed to be Universities are not being treated at par and this issue need to be examined

- Members were informed that NPTEL developed to train teachers through distance mode to augment the shortage of faculty

- Existing multiplicity of regulator will not work and there should be only one Agency as regulator

- Distributed learning not distance education alone should be considered as alternative to distance education

- Technical programmes with hand on practice in a practical situation may be considered for offer through distance mode

- Online programmes offered in industry-institute partnership support the idea that multinational companies may need it for training and re-training beyond jurisdiction specified by Act and Statute of a University

- Faculty experience working in distance education in situation may be taken as valid experiences for future growth

- A separate regulatory body for distance education away from an University is desirable for future growth of the system

- Institutions granted university status may be given autonomy for academic programme and the Universities may be made responsible to meet the desired outcome. Accreditation of programme and institutions may help to meet this target

- Any policy change should take into consideration the interest of learners

Session – 3: <u>Regulatory Frame work for Distance Education Courses/Institutions for Enhancing the share of ODL in GER</u>

- Scaling up of distance education for enhancing GER with quality is desirable to meet the 50% enrolment in distance. A separate regulatory body for distance education is necessary for maintaining quality in the system

- Quality of teaching-learning process is important for credibility of the system, and IT can enhance the quality in class room and also help to scale up the GER

- Framework and guidelines and parameters may clearly be evolved for teaching-learning process, student support, delivery mechanism and final outcome

- Convergence between different technologies in distance education and with conventional system may be encouraged to increase the GER

<u>Points for Consideration as Recommendations</u>:

- The participant endorsed the idea for a separate regulatory body for distance education away from a University for future growth of the system and scaling up of distance education for enhancing GER. The participants felt the need for autonomy of DEC as a regulatory body for distance education.

- Accreditation of programmes and institutions be given preference over approval to bring transparency in the system.

- Programmes offered and conducted in collaboration with industry be encouraged as it helps both in employment and proper delivery of programmes for work based learning. Leveraging infrastructure from industry may be considered for technical/professional programmes.

- Technical programmes using distributed learning with enhanced technology use with proper hand on practice may be considered for offer through distance mode.

- Jurisdiction requirement for online courses may not be imposed as many multinational companies use online programmes for training and retraining of professionals distributed all over country even beyond border.

- Limit of intake for MBA and MCA per study centre may be increased from 60 to 80.

Annexure-VI: Minutes of the Consultative Committee Meeting-II with State Open Universities and Distance Education Institutions of Universities established under Acts of Parliament/ State Legislatures held at IIC, Delhi on 26.02.2011

A meeting of the High Powered Consultative Committee constituted by the MHRD for regulating the standards of distance education system was held on 26.02.2011 at 10.30 am onwards at India International Centre, New Delhi.
The following were present:

(i)	Prof. N.R Madhav Menon	Chairman
(ii)	Prof. V.N. Rajasekharan Pillai Chairman, DEC	Member
(iii)	Prof. S.S. Mantha Chairman, AICTE	Member
(iv)	Sh. A.K. Singh Joint Secretary, MHRD	Member
(v)	Sh. R.K. Srivastava Advocate, Supreme Court	Member
(vi)	Sh. Lalit Bhasin Advocate,	Member
(vii)	Sh. K.Gunesekharan Additional Secretary, UGC	Representative Chairman, UGC

The Chairman, DEC extended a warm welcome to the members, Vice Chancellors of Open Universities, Directors of DEIs and other participants on behalf of the High Powered Committee constituted by the MHRD for regulating the standards in Distance Education.

Initiating the discussion, Prof. Madhav Menon, the Chairman of the Committee, briefly explained the mandate of the Committee and said that the Committee aims is to get the feedback from stakeholders to enable it to evolve policies for regulation of distance education in the country. He further briefed that a meeting of private providers of the distance education Institutions was convened in Bangalore on 24.01.11 to elicit their views and responses about managing distance education system and suggest a governance structure for distance education system.

He also informed about five Legislative bills being processed by the Govt., the four of which are before the Parliament namely – Bill for Assessment and Accreditation, Educational Tribunal bill, Foreign Education services provider bill, and Educational malpractices bill.

In addition there is one more bill namely establishment of National Commission for Higher Education and Research(NCHER) bill. NCHER will subsume UGC and AICTE and some of the functions of professional councils. A totally different frame work for managing institutions is being envisaged – with total autonomy to the institutions to manage their entire system. The aim of this Committee is to prepare conducive framework for autonomy to the distance education institutions at higher education level.

He further elaborated that the Government intends to increase GER to provide opportunity to large section of society for higher education. One way to increase GER is encouragement to Distance Education System. However, there are problems in maintaining standard and quality in the Distance Education System. Different agencies are associated with the approval of distance education programmes. Accreditation and approval are the main responsibility of Distance Education Council.

Role of AICTE is to regulate technical, pharmacy and management programmes while UGC is for regulating conventional institutions providing general education. Thus there is overlapping of functions between DEC, UGC and AICTE. This has created confusion in the institutions and many have discontinued offering programmes through distance mode. At present about 22% enrolment in higher education is through distance mode and thus there is a need to give importance to Distance Education mode through proper support in terms of infrastructure, manpower and technology to increase the GER from current 12% to 30% in next 10 yrs. The share of distance education in this will be 30-50%.

Higher Education without quality management will be of no use. Quality is a requirement and should not be compromised, be it conventional system, distance education system or mixed mode. Technological advancement has made it possible to offer technical programmes through distance mode. Many foreign Open Universities are offering technical programmes. Some Open Universities in our country are offering programmes using very good quality SIM, best technology. However, there are some universities offering distance education using very inferior quality material and with no student support services. Under such circumstances, what should be the strategy to increase GER on the one hand and on the other hand methods to deal with institutions using very inferior quality study materials and having no infrastructure for student support services.

He also explained the terms of reference of the Committee to avoid confusion about the role of regulatory authorities of DEC, UGC and AICTE for approval of distance education programmes. Processing the recognition of courses, equivalence of the degree offered either through regular face-to-face mode and ODL and approval of technical programmes needs to be examined in details.

Thus, there is a need to evolve regulatory frame work for regulating standards of the courses and Institutions through distance mode to enable us to double the GER from existing level of 12% to 30%. This was followed by discussions for each session.

Session-I: Outcome Benchmarks for ODL systems for equivalence with conventional mode - issues of quality assessment.

The following views were expressed:

As per govt of India Gazette notification no. 44, F. No. 18-15/93-TD.V/TS.IV dated 1st March 1995 published in 'The Gazette of India' on Saturday, April 8, 1995, states that 'On the recommendations of the Board of Assessment for Educational Qualifications, the Government of India has decided that all the qualifications awarded through Distance Education by the Universities established by an Act of Parliament or State Legislature, Institutions, Deemed to be Universities under Section 3 of the UGC Act, 1956 and Institutions of National Importance declared under an Act of Parliament stand automatically recognized for the purpose of employment to posts and services under the Central Government, provided it has been approved by Distance Education Council (DEC) and wherever necessary by All India Council for Technical Education (AICTE), New Delhi. The Association of Indian Universities (AIU) has also recognised qualifications offered through distance mode to be equivalent to regular mode.

- Distance Education Institutions are offering programmes using good quality study materials and arrange counselling sessions and laboratories facilities for hand on practice. Thus degrees obtained through open universities should not be treated inferior to conventional universities degrees.
- Central Universities, Open Universities and dual mode universities are established either through an Act of Parliament or State Legislative Council. The jurisdiction of universities to offer distance mode programmes cannot be limited to boundaries of state and thus should be as per Act and Statutes of concerned university.
- Frame work for establishing study centres and facilities available at these centres should be developed and put on website to bring more transparency in the system.
- Equivalence of degrees obtained through ODL and Conventional system is an important issue and modalities need to be worked out for the same in respect for admission to higher education and employment as the Open Universities offer programmes as per provision specified by UGC regarding specification of degrees.
- Open Universities have been established by Act of Legislatures and have twin responsibilities to reach the unreached learners and also allow non-formal entry to learners. Open Universities have structures within open system and use quality SIM learning materials with face to face counselling sessions and use ICT facilities. All State Open Universities are recognised by UGC under 2f and follow same pattern specified by UGC and also offered by Conventional Universities. Lateral entry for school dropout should be encouraged. As the degrees are on similar pattern, DEC should be empowered to approve technical programmes also.
- Model curriculum for technical programmes may be developed by AICTE and Universities be allowed to offer technical programmes ensuring guidelines prescribed by AICTE. External regulations need to be minimised and Universities be encouraged to evolve internal regulatory mechanism. Universities failing to comply with guidelines may be tried under mall practices criminal law.
- Dual mode universities, offering courses through distance mode follow same curriculum as for face to face programme and learners take the same

examinations. There should not be any discrimination for distance mode students to migrate between distance mode to regular mode.

- Need is to decide equivalence and quality with a regulatory body with autonomy to Universities and Institutions as the equivalence of a programme in university is decided by the Academic Council of the university.
- IIT Mumbai is offering programme through distance mode in contact mode with contact classes like face-to-face regular mode with same fee. The other is non contact mode – like any other distance mode with option to learners to switch over to contact mode and is followed by Universities outside country for technical programmes. The learners should have autonomy to do both contact mode and distance mode programmes. IIT, Mumbai makes available lectures live for distance mode students. Minimum 100 MBPS bandwith should be available for such lectures. 1-GBPS internet connection is being made available shortly and the whole country can be seen as virtual university.
- IIT, Mumbai has a web portal 'Forum' – where students can put the questions and faculty can answer – off line and one hour live answer is necessary, in a week.
- In distributed mode teachers from other institutions can participate in live lectures and programmes like mechanical, electrical and electronics engineering can be offered through virtual lab facilities. As many reputed institutions staff will be associated with such programmes, experience available to learners will be better than colleges in regular face to face mode which have faculty shortage.
- Blended mode with same entry qualification and limited intake for professional programmes can be effective for ensuring quality. This may also be extended to technical programmes. Qualitative interventions and ensuring minimum requirements for each programme with effective monitoring by faculty can be effective in offering good quality programmes through distance mode.
- Colleges affiliated to a University and AICTE approved institutions should be study centres for technical programmes.
- Distance mode may be treated as a parallel complimentary system in co-existence within broad framework with conventional system. A consortium of Vice Chancellors of Open Universities, FICCI, CII etc. may be formed to assess proposals for launching, quality, monitoring and help in placement.
- Specification of degree with communication and minimum standard for all open universities may be undertaken in converse with UGC curriculum for equivalence of degrees of ODL and conventional system.
- Distance mode and conventional mode are two different paradigms. Basic need and approach to impart learning of distance mode is different. Inputs, process and deliverables need to be defined properly to ensure quality.
- Quality control through regulatory authority alone is not sufficient to maintain standards. Accreditation authority as an independent body which accredits professional bodies capable of accrediting programmes and institutions on

recognised parameters and ranking of university may minimise regulatory control and can help in assuring quality in the system. Accreditation parameters admission, process and examinations to be devised by accreditation authority. Entitlement of universities should be based on performance.

- Every university should offer both face to face and distance mode programmes to overcome the problem of equivalence of degrees.

Session-II: Guidelines for processing of approval of technical programmes through distance and mixed mode.

- All technical programmes can be offered through distance mode. Guidelines and norms may be developed for this purpose.
- The Chairman, AICTE mentioned that AICTE follows entire on-line process for approval. Details about institutions and infrastructure facilities available with it together with laboratories facilities, staff etc is available on web. Initial scrutiny done by academician, architect and legal expert followed by expert committee visit to evaluate all facilities. Report immediately uploaded. As of now AICTE allows offering of only MBA and MCA programmes through distance mode.
- Job profiling of the industry vis-a-vis specialization of technical programmes is needed to assess the requirement of specialization at the entry level.
- Procedure followed for recognition of distance mode Institutions and programmes was briefly explained by the Chairman, DEC. Institutions submit applications for approval in prescribed format. Initial scrutiny is done at DEC followed by visit of expert committees to institutions. Composition of expert committee depends on the type of programmes to be offered by the Institution. AICTE and UGC nominees are associated as experts on the expert committee. Visit report is then placed before the Joint Committee if applicable and finally placed before the DEC for approval.
- Guidelines prescribing parameters and methodology for processing of technical programmes may be developed ensuring requirement of technical programmes for input, process and outcome to ensure quality as there is demand from industry for vertical mobility for diploma trained professionals.
- Offer of professional, vocational and technical programmes need to be promoted to meet the growing demand of the skilled professionals and technically trained personnel to fulfil the mandate of distance mode to reach the unreached.
- International experience also shows that technical programmes can be offered through distance mode.
- Distance mode does not prohibit use of face to face component and judicious use of blended mode with different kind of technology can be used to offer technical programmes.

- Only 25% of infrastructure facility being put to use by Institutions and rest remains idle and need to be utilized. Public Institutions have very good infrastructure and lab facilities and need to be utilized. Notion that left out seats in Engg. institutions remain unfulfilled and there are no takers for these seats need to be dispelled. There is need to bring the left out students in the distance education system.
- Work integrated learning with collaboration with institutions and industry may be used to offer technical programmes through distance mode.

Session-III: Regulatory framework for Distance Education Courses/Institutions for enhancing the share of ODL in GER.

- The present system of regulations does not enable a student to assess the quality of education being imparted by institutions. Institution should facilitate learners to get information about the quality of education offered by it and in no way should for distance education on the lines of the learners.
- Regulatory accreditation framework – supervisory authority NCHER may be created to evolve parameters for maintaining quality in the system with internal autonomy to universities and institutions. The proposed council will be parallel to NCHER keeping in view special requirements of the distance education system.
- This may help to ensure quality of programmes offered through distance mode and enhance share of ODL in GER.
- Existing regulatory mechanism and expertise available at DEC may be utilized in proposed council to establish equivalence between distance mode and face to face system.
- Expertise required for Independent regulatory body-
    - a technology expert with good ICT background
    - a representative from corporate/social sector
    - an expert in higher education
    - stake-holder
    - representative from social sector
- M.Phil and Ph.D programme offered by Open Universities are not distance mode programmes. They are infact full time programmes wherein admissions are done through entrance examinations. The programmes involved intensive course work, paper presentation, regular assignments, research and publications in referred journals. The M.Phil and Ph.D programmes should be offered by the Open Universities.

Points for considerations as Recommendations:

- An independent regulatory body may be created for recognition and accreditation of Universities and Institutions offering programmes through distance mode. The proposed council will be an autonomous part of NCHER keeping in view special requirements of the distance education system. The existing Distance Education Council (DEC) at IGNOU may become an integral part of the proposed Council for distance education and subsumed in it.
- Equivalence of Open and Distance education programmes vis-à-vis same face to face programmes in conventional system is desired to bring ODL degrees at par with conventional degrees.
- The technical programmes may be allowed to be offered through distance mode under blended mode incorporating ICT technologies, live telecast lectures and virtual lab facilities along with face to face component and laboratories facilities for hands on practice. The norms and guidelines may be developed in this regard.
- The offering of programmes can not have territorial jurisdiction. The territorial jurisdiction may be as per the Act/Statutes/MoA etc of the concerned Institution for offering programmes through distance mode.
- The proposed Council as an independent regulatory body for distance education may have members from the following areas:
    - One technology expert with good knowledge of ICT.
    - One member from corporate/social sector.
    - One higher education expert.
    - One distance education expert
    - One Expert representing stake holders.
- The M.Phil and Ph.D programmes should be conducted by the Open Universities.
- Skill oriented and professional vocational Work Integrated Learning programmes may be encouraged to be offered through distance mode to increase the GER from 12% to 30% in next 10 yrs with 30-50% increase of GER through distance mode.

Annexure-VII: Minutes of the Consultative Committee Meeting-III With Industry Representatives Held At PHD Chamber of Commerce, New Delhi On 07.04.2011

1. The following were present :

1. Prof. N.R. Madhava Menon - Chairman
2. Prof. S.S. Mantha, Chairman, AICTE - Member
3. Shri A.K. Singh, Joint Secretary, MHRD - Member
4. Shri Rabindra Kumar Srivastava, - Member
5. Senior Advocate, Supreme Court - Member
6. Dr. K. Gunasekharan, Additional Secretary, UGC - Representative Chairman, UGC

Prof. V.N. Rajasekharan Pillai, Chairman, DEC and Shri Lalit Bhasin, Senior Advocate, Supreme Court could not attend the meeting.

2. Initiating the discussions the Chairperson of the Committee, Prof. N.R. Madhav Menon, said that this meeting is a follow up meeting to decide the actions to be taken to finalize the report of the Committee and to discuss the issues to be raised in the subsequent meeting with the representatives of the Industry to elicit their views and responses on Open and Distance Education and Employability. With this he invited Committee views on the following three points:

- Format for discussion with representatives of Industry-especially purpose and perspective from Committee point of view

- Schedule agreed to finalize the report of the Committee and

- Views and responses of the members on a note circulated by Chairman, AICTE in earlier meeting.

Subsequently point wise discussions were undertaken on the above points.

3. Format for discussion with representatives of Industry

The Committee discussed the programme schedule prepared by PHD Chamber and found it satisfactory which interalia included topics on Industry perspective and Educational Experts perspectives with initial opening Address by President PHD Chamber and MHRD Committee perspective by Chairperson of the MHRD Committee.

4. Schedule for finalization of the Committee Report

It was agreed that Committee will meet continuously for three days on 27th, 28th and 29th April, 2011 to finalize the report.

5. To discuss the note circulated by Chairman, AICTE in the previous meeting

There was considerable discussion to harmonize relation between UGC, AICTE and DEC.

It was pointed out that UGC and AICTE Acts empower these bodies to regulate the standards in higher education and technical education respectively. However, the Distance Education Council derives its powers through IGNOU Act section 5(2). The IGNOU Act Section 5(2) enjoins upon the University the responsibility to maintain standards in open university and distance education systems.

Sh. Ravinder Kumar Srivastava, Advocate, Supreme Court & Member of the Committee pointed out that

- At present there is no legal framework under IGNOU Act to regulate open and distance learning as the word Distance Education Council is not mentioned in the Act. Thus, there are serious questions in regard to legality, workability and also morality of DEC under IGNOU Act to act as regulator and if that is so what is advisable regulatory framework?

- UGC Act is a separate legislation all together and open and distance education is not mentioned in UGC Act. Similarly there is no mention of distance education in AICTE Act.

- However the above observations of the legal members need to be seen in terms of the introduction to the IGNOU Act reproduced below for reference.

An Act to establish and incorporate an Open University at the national level for the introduction and promotion of open university and distance education systems in the educational pattern of the country and for the co-ordination and determination of standards in such systems.

This Cleary enjoins upon IGNOU to take measures to ensure standards in the distance education systems in the country.

In an ideal situation, the DEC should become autonomous with a separate legislation entrusted with the responsibility to ensure standard for entire ODL system. Till such time a proper legislation comes, DEC may work as an autonomous body as a separate institution through an administrative regulation.

The meeting ended with a vote of thanks to Chair.

Annexure-VIII: Recommendations from the VCs' of State and Central Universities

Based on

The Conference jointly organized by the MHRD and UGC at Vigyan Bhawan, New Delhi on March 25-26, 2011.

University leadership acquires a significant role in shaping policy planning process in Higher education, University Grants Commission (UGC) convened a meet of Vice-Chancellors of Central and State Universities in the country on March 25-26, 2011 at Vigyan Bhawan, New Delhi to brainstorm on issues critical to higher education and make insightful contributions for possible approaches for future policy interventions. The deliberations touched a variety of themes ranging from Access, Equity, Engagement & Outcomes; Content and Quality; Research and Innovations; Faculty Development and Inter-University Resource Sharing; India's Global Engagement in Higher Education; Alternative Modes of Delivery of Higher Education; Models of Financing, and Imperatives.

The following recommendations were made to strengthen Education in India with alternative mode of delivery such as ODL and e-learning that can contribute significantly towards the goal of expansion higher education in the country.

Theme: Alternative Mode of Delivery of Higher Education

(*a)* *Core Issues*

At present, 18 to 20 per-cent of enrolment in higher education is in the programmes offered by the Indira Gandhi National Open University (IGNOU) and State Open Universities. However, there is a substantial number of students who are enrolled in various correspondence courses with the State Universities and the Central Universities. The Distance Education Council (DEC) is authorized to regulate the standards of distance education programmes run by the IGNOU and the State Open Universities. The correspondence courses offered by the State and the Central universities are regulated by the universities concerned.

There is an opportunity to exploit the Open and Distance Learning (ODL) mode, particularly with the advances in technology. This will increase access and the reach of the institutions to all corners of India. This mode of delivery may provide enormous opportunities of learning to those who have missed the opportunities for formal education because of various reasons. It may also provide opportunities to those who are already employed and seek to enhance their qualifications. However, the perceptions about the quality of programmes under ODL to be at par with the regular courses where face to face teaching is used need to be convincingly tackled. With the advances in ICT, the boundary between face-to-face and ODL modality is getting blurred. While there should be an attempt to use online teaching modes in the face-to-face programmes,

similar opportunities should also be an integral part of ODL programmes to derive optimum advantage in learning achievement. The following core issues were discussed on this theme:

- *The credits earned through the ODL; modalities to accommodate in the face-to-face learning;*
- *Identification of programmes which are more amenable for ODL than others;*
- *Best models available for development and delivery of e-content for various levels of courses; and*
- *Special mechanisms are required for monitoring the quality of programmes offered through the ODL modality in different institutions (Open Universities, State Universities, State Institutions etc.).*

(b) Scope of Deliberations

Higher education in India is at the cross roads of various reforms and there is an urgent imperative to seek means of enhancing the GER. While the establishment of new universities is on the anvil, seeking to strengthen alternative modes of delivery of higher education is equally important. Open & Distance Learning (ODL) is now becoming mainstream. The inherent nature of ODL comprising of flexibility, modularity and addressing target issues of social inequality, gender disparities makes it a feasible tool for enhancing access. Further programmes available in the modular and credit system in ODL institutions could be extended to conventional universities as well. As such, alternative modes such as ODL and e-learning can contribute significantly towards the goal of expansion higher education in the country.

The following core issues were discussed on this theme:

Blurring Boundaries between Formal and ODL Systems

In consonance with the requirements of new modes of delivery of higher education, the governance structures of these universities will have to be articulated differently. In an ideal situation, the focus should be on delivery of quality higher education independent of the mode which means that the borders between "conventional", dual mode and ODL should get blurred. All universities should be enabled to use technology to its fullest extent to offer programmes both through face-to-face mode and through technology enabled means.

Norms and Standards in ODL

The Distance Education Council (DEC) may be an autonomous body to coordinate standards in Open & Distance Learning. It may function through linkages with various professional bodies for accreditation purposes. While there are many private players in distance education and on-line learning, the State Open Universities should be supported financially in order to deliver quality programmes. The investment should be both in faculty development and training, curriculum development and deployment of technology. All programmes are amenable to Open & Distance Learning practices. To ensure quality, benchmarks will have to be identified for activating Study Centres which have the requisite, physical and human infrastructure. In general, institutions may be encouraged to offer general degree programmes through alternative modes and wherever specific/high end requirements are needed, the criteria will have to be specified.

Accreditation of ODL System

ODL can be on a strong wicket only if it is played well and its processes are comprehensively addressed. A strong accreditation mechanism which emphasises on internal quality checks and external reviews is important. Student Satisfaction Surveys, and outcomes assessments may become minimal requirements. Some important criteria for which key performance indicators are to be worked out for quality evaluation are: Curriculum, Pedagogy, Technology Infrastructure, Student Support Services, Credit transfer and Governance.

In respect of Alternative Modes of Delivery of Higher Education, the following emerged as the major recommendations of the Conference:

- ***Use of ICT in further development and growth of conventional and distance mode of higher learning to reach the remote and less developed segments of population areas.***

- ***Promotion of technical, vocational and professional education through ODL with hands-on-experience in AICTE approved institutions.***

- ***Introduction of credit transfer system between and among the conventional and ODL systems for meaningful convergence between the two modes.***

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