A Report on

Round Table Discussion on Innovations in Distance Education

Organised by

National Centre for Innovations in Distance Education
in Collaboration with
Microsoft
and
FITI, IIT Delhi
Supervision and guidance: **Prof M. Aslam**
Editor: **Dr. Moumita Das**
Manuscript prepared by: **Dr. Moumita Das and Ms. Rupali Kumari**
Language editing by: **Dr. Nandini Sahu, Reader, Faculty of English, School of Humanities**

PRINT PRODUCTION
Sh. B Natrajan, DR (P)Sh S. Burman, AR (P) Sh Babulal, SO (P)
MPDD, IGNOU, New Delhi

February 2009

© *Indira Gandhi National Open University, 2009*

All rights reserved. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from the Copyright holder.

Printed and published on behalf of Indira Gandhi National Open University, New Delhi by the Director, National Centre for Innovations in Distance Education.

Laser Typeset by: Tessa Media & Computers, C-206, Abufazal Enclave-II, Okhla, New Delhi-110025
Executive Summary

1. Introduction

2. Proceedings of the Roundtable Discussion
   2.1 Identification of New and Innovative Solutions in Distance Education
      a) Curriculum based video and web courses
      b) Virtual Labs
      c) Multimodal Systems
      d) Modular Learning
      e) Open Source Learning
   2.2 Exploration of Avenues to Develop a Platform that Connect the Users and the Developers
      a) Sharing of educational modules
      b) Sharing of latest information
      c) Competency development and enhancement
   2.3 Possibility of Establishing a Network with NCIDE for R&D in Distance Education
      a) Public-private partnership to manage distance education

3 Action Points

Annexures

i. List of Participants
ii. Programme Schedule
iii. Participating Institution
iv. About the Collaborators
Executive Summary

In today’s era of globalization there is an urgent need to impart not only quality education but also to address the issues of building competencies of our human resource. The education system in India faces the challenges of reach, access and scale. The distance education system to some extent has provided a solution to the problem of reaching large numbers. However, the problem of access and scale still remain. To enable access, the efficient use of technological solutions for developing educational infrastructure is required. To scale up the outcomes of imparting quality education, the issues of personalization of education, best practices and pedagogy need to be addressed. All these require technology-enabled effective learning solutions.

Aimed at exploring new avenues for innovations in ODL and facilitate interaction between the developers and users of the technologies for aiding teaching – learning process in ODL, the NCIDE, IGNOU organised a Round Table Discussion. From this discussion, it emerged that there was a need for the following:

- Work collaboratively for soft solutions.
- Public private partnership models to manage education.
- Explore open source learning.
- Sharing of educational modules in an interactive format.
- Designing virtual labs for imparting critical skills for the next generation.
- Development of multimodal systems.

The discussion called for exploring the opportunities in the next 4-5 years and solutions, with additional research and development. The discussion concluded that focused objective is required for imparting education with sustainability and credibility.
Round Table Discussion
- An Introduction

1.1 Background

We are witnessing an unprecedented technological revolution in all spheres of development, and education is no exception to it. The open and distance learning (ODL) system, as an effective mechanism not only to reach large numbers with quality education but also to address the areas of educational intervention which were hitherto untouched by the conventional system, has taken roots in the country. Application of Information and Communication Technology (ICT) is increasingly playing an important role in making ODL interventions more and more effective and useful. There is a constant search going on for new and innovative technologies and their application in distance educational interventions to more effectively address issues of access, quality and equity. Technological innovations have preoccupied the mind of industry for its varied and effective applications for development in general and education and training in particular. Educational institutes are also grappling with the issue of how exactly to harness and exploit the potentials of innovations in programme development and delivery, and improvements in the organization of education systems which include quality assurance, benchmarking, technological interventions, research and training. While all these developments are taking place, very little exchange of experiences has taken place among the developers and users of new innovative technologies in the educational sector, particularly in the ODL system.

In order to facilitate the exchange of experiences towards a search for the technologies that would facilitate innovative solutions for Distance Education in India, and to foster the spirit of innovation, the National Centre for Innovations in Distance Education (NCIDE), IGNOU, in
collaboration with Microsoft India and Foundation of Innovations and Technology Transfer (FITT), IIT Delhi organized a Round Table Discussion on Innovations in Distance Education on February 20, 2008. The event mainly focused on the application of ICT, which is increasingly playing an important role in making Open and Distance Learning (ODL) interventions more and more effective and useful. It also focused on facilitating the exchange of experiences towards a search for technologies that would facilitate innovative solutions for Distance Education in India.

### 1.2 Objectives

The main objectives of the Round Table Discussion were to

1. Explore new avenues for Innovations in Distance Education, and
2. Facilitate interaction between those responsible for developing new technologies and those who subsequently apply these technologies for aiding the teaching-learning process in Distance Education.

The specific objectives of the Round Table Discussion were to:

i) identify new and innovative solutions for aiding the teaching-learning process in Distance Education,

ii) explore avenues to develop a platform that would connect the users and the developers, and explore the possibility of establishing a network with NCIDE for research and development (R&D) in Distance Education.
Proceedings of Round Table Discussion

2.1 Inaugural Session

The Round Table Discussion was chaired by Prof. V. N. Rajasekharan Pillai, Vice Chancellor, IGNOU. Dr. Anoop Gupta, Corporate Vice President, Microsoft Education Products & Solutions Technology Policy and Strategy, Microsoft, was the chief guest. The participants comprised VCs and Professors of different Universities, Consultants and Advisors, technology leaders, and representatives from ICT companies. A list of the participants is placed at Annexure I.

After the formal inauguration, the Director NCIDE made a brief presentation about IGNOU and its achievements. This was followed by opening the meeting for discussions.

2.2 Discussion Sessions

The discussion began with Dr. Anoop Gupta highlighting the need for enabling quality education for every one with the use of technology. He stressed that cost effectiveness is important in the Distance Education scenario. He emphasized that the areas that should be covered primarily by technology in education are:

1. Access to education, that is, how to address the learning of handicapped people, rural people etc. with the help of technology.
2. Education can be made relevant, engaging and personalized to the student in the context of village, town etc. Empowering the teachers, establishing “Education Communities” especially for teachers, is a must so that they can make their innovation shine to make their skills come up.
3. Simplify technology (technology should come in simple way). Every institution doesn’t need to become an expert in technology, rather, people who are experts in technology can collaborate to
Thereafter other eminent participants deliberated on the various challenges faced by Distance Education and the options available to it. The outcomes of the discussion are summarized below:

1. **Identification of new and innovative solutions for aiding the teaching-learning process in Distance Education**
   i. Curriculum based video and web courses
   ii. Virtual Labs
   iii. Multimodal Systems
   iv. Modular Learning
   v. Open Source Learning

2. **Exploration of avenues to develop a platform that connect the users and the developers**
   a) Sharing of educational modules
   b) Sharing of latest information
   c) Competency development and enhancement

3. **Possibility of establishing a network with NCIDE for R&D in Distance Education**
   a) Public-private partnership to manage education

The details of the outcomes are discussed in the following sections.

### 2.3 Identification of New and Innovative Learning Solutions

#### 2.3.1 Curriculum based video and web courses

Video has the potential to support teaching and learning across the curriculum. Web-based instruction has the advantages of allowing students to work at their own pace and to participate in interactive learning with immediate feedback and self-assessment. Additional advantages include being able to deliver stimulating material to large groups, even
when faculty and face time in the curriculum are limited. A project announced by the National Programme on Technology Enhanced Learning (NPTEL) aims at enhancing the quality of engineering education in the country by developing curriculum based video and web courses. The courses are shared and designed for independent online learning. It has enhanced the quality of engineering education in the country. This project is being carried out by IITs (Seven), IISc Bangalore and other premier institutions as a collaborative project. At IIT Madras, the project is evolving and it is their intent to provide learning materials, digitally taped classroom lectures, supplementary materials and links to state-of-the art research materials in every subject possible. Prof. K. Mangala Sunder, Indian Institute of Technology Madras, Chennai, who has been closely associated with this project, described the need for development of such curriculum based video and web courses for Distance Education as well.

2.3.2 Virtual Lab

Research has shown that meaningful learning can occur when connections are made between information stored in visual and auditory working memory systems. A real laboratory experiment etches firmly on the mind of the student for which there can be no substitute. The mistakes that a student makes during any experiment helps that individual to more clearly understand the concepts behind the experiment. The experimentation in a real laboratory is irreplaceable, but there are certainly aspects that make this option difficult to implement and in some cases, like distance education, impossible to support. The alternative to real laboratory work are virtual laboratories. With the help of the Internet and computing technologies, high level of interaction between students and instructors as well as among students has become possible. The use of virtual laboratories support for providing engaged, active learning experiences in science education. Although much criticized they certainly have a number of advantages over real laboratories Apart from improvement of accessibility, these advantages include a pedagogical advantage of a well designed virtual laboratory of being able to better explain difficult theoretical concepts in the study field of concern.
Dr Kavi Arya, Indian Institute of Technology, Bombay said that multiple ways need to be adapted, such as virtual labs, which should be able to teach both in experiential and experimental way, making distance education more effective. Dr Anil Wali, Indian Institute of Technology, Delhi, also emphasized the need to design virtual labs for imparting critical skills for the next generation.

2.3.3 Multimedia Systems

Multimodal courses involve the use of multimedia and ICT to develop dynamic course resources. For example, a multimodal course may include elements such as, simulations, interactive diagrams, images, video and audio materials, interactive quizzes and crosswords, PowerPoint lectures with audio, and hyperlinked examples. With this new flexibility, major concepts within course material may now be presented in a variety of modes, for example, in both a visual and aural form. Dr Anil Wali stressed on the development of multimodal systems that should address the issues of Distance Learning, keeping in mind the intellectual property rights (IPR) issues.

2.3.4 Modular Learning

Modules can be described as an instructional package dealing with a single conceptual unit of subject matter. Modular systems divide a complex problem into a set of sub-problems. Each of the sub-problems may be simpler to solve than the original problem. This exercise finally leads to the solving of the complex problem. Dr. Kavi Arya emphasized the need for teaching learning to be modular, so that these modules can be combined in various ways and shared. He also suggested the creation of a national library of modules on each subject taking care of the copyright issues. Dr. Anoop Gupta said that to expect the teachers to spend time with the software engineers to develop modules is not feasible. It is for us (software industry) to design simple software tools so that anybody can design the modules.
2.3.5 Open Source Learning

In an Open Source environment institutes provide course materials and knowledge free on the web. It provides flexibility of use. The resource is open for everyone and can be accessed from anywhere. With rapidly growing demand, particularly from working professionals who need courses to remain up-to-date or for advancement in their careers, and reductions in financial support, universities face increasing pressure to find solutions that are effective academically and fiscally. So there is a need for open-source distance-learning system that fulfills distance education role and that is inexpensive, easy to use and operate, and highly effective. Dr. Savita Datta, Director, Campus of Open Learning, University of Delhi (DU) said that Open Source will be fruitful only if texts are put online so that learners can interact. She also suggested that a “wikipedia” should be built. Prof. Kushal Sen, Indian Institute of Technology, Delhi, New Delhi said that Open Source is the source which is open to anyone who wants to learn. The Open Source, with the use of technology, will be able to generate a pocket or a basket from which one can take/pick and learn as needed. Dr Anil Wali also emphasized the need to explore Open Source learning.

2.4 Exploration of Avenues to Develop a Common Platform for Users and Developers

2.4.1 Sharing of Educational Modules

Sharing of educational modules means sharing unique and interesting resources potentially of value to others who would not otherwise have access to them. This sharing has the potential to change the very nature of teaching and learning, producing a dynamic, interconnected educational environment that is pedagogically sound, both time and cost efficient, and engaging. The modules once created can be shared by the academic and learner community, through Open Source or other methods.
2.4.2 Sharing of Latest Information

Sharing of information between teachers and students can take place through the use of latest technology such as blogs, podcasts etc. Blogging has quickly become one of the most effective learning tools in education today. It introduces students with new methods of communicating, improving their writing, and helps motivate them to find their voice. Students tend to write about current events, personal beliefs, and topics related to their education. Blogs and wikis are two new content development and management technologies that enable an interactive and intercreative engagement amongst students and between students and teachers. Prof. Zahid H. Khan, Director, FTK Centre for Information Technology, Jamia Millia Islamia emphasized the sharing of information between teachers and students through latest technology including blogs, podcasts etc.

2.4.3 Competency Development and Enhancement

‘Competency’ can be defined as a characteristic of an individual, which is related to effective or superior performance in a job. With the emergence of new technologies, the users (both teachers and learners) need to be competent to be able to use these technologies.

Prof. A. K Bakshi, Director, Institute of Lifelong Learning, University of Delhi suggested the need to develop a strategy where teachers’ training becomes a regular feature in the University system. He said that on every alternate year we could organize teacher training programmes on regular basis, because whatever skills/knowledge a teacher requires at the time of joining is not sufficient for the entire professional career. He said that the way technology is exploding; we need to find a solution as to how technology can help in providing online training programmes that could be initiated in Universities. Prof Zahid H. Khan suggested that for the capacity building of the teachers/faculty members, it is important to train them to use the technology. The teachers can be oriented in technology and empowered to choose the right technology. This will also enable the teacher to solve the problem surrounding him/her.
Dr. Kavi Arya said that in India, there are a lot of people who are seeking gainful employment but are not able to access the jobs that they need. There is a demand supply mismatch. There are qualified people but they are not suitable for the jobs. Therefore, competency development is a key issue. We need to integrate the large numbers into the economic mainstream. We need to focus on competency development, competency enhancement and moving on to new competencies in professional development. He said that we should orient our education towards the jobs in industry. The job of the Universities should be to equip the students with the fundamentals, which the industry can reframe and deploy in whatever way they want and our role should be to show the industry how best they can reframe the individuals as per the need. The opportunities in the next 4-5 years need to be explored and it needs to be seen whether the solutions, with additional R&D, can be found out. Mr. Anjan Das, Confederation of India Industries suggested that there must be the element of employability across education system. He said that technology interventions can be made in the elements of education, such as in the infrastructure, curriculum, and policy decisions, and the impact studied to get a better product.

Prof. S Ahmad, Vice Chancellor, Jamia Hamdard said that the quality of the competency is not high because the actual effective transfer of instruction is not taking place from the teacher to the learner. New technologies are emerging, which can help us in the enhancement of competencies. We need to develop the intellectual capability of every person. We need to address the learning process of every individual person. Distance learning can do this with the help of technology to produce the best human resource in the world. He suggested that the technology should be made more cost effective to address large numbers.

Dr Anoop Gupta said that by relatively simple application of technology one can significantly enhance the outcomes, but the whole point is that if one wants to scale, technology is not the solution, but technology has to be a key ingredient. It was otherwise like one has a traditional thing and one is just broadcasting it on a large scale by whatever means and not allowing scaling to happen. There are different kinds of intelligence but it is still a
small number and one can tailor if one gets the right kind of stuff and the right interaction, and if one finds out such people who learn similarly, and one can form communities. He believed that there is an opportunity to address the individual, and one had to make sure the technologies were available to address the learning.

2.5 Establishing a Network with NCIDE for R&D in Distance Education

2.5.1 Public-Private Partnership to Manage DE

Success in Distance Education requires public-private partnership of institutions involved in Distance Education. In such type of partnership, the public sector can play the role of enabler and facilitator, and the private sector can contribute its expertise, technology and management practices. Dr Anil Wali stressed on the need for public-private partnership models in managing the educational microsystems. Prof. K. Mangala Sunder said that there are many challenges and we need to work collaboratively for soft solutions. A focused objective is required for the next five to ten years for imparting education sustainability and credibility and proposed to develop action points for the initiative. He suggested the technological help Microsoft could provide to IGNOU. He said that IGNOU provides a wide access to a broad base of learners across the country and this aspect should be leveraged and strengthened. He suggested to Microsoft if it could develop, in collaboration with IGNOU, to develop a fully online educational examination system. An immediate help from Microsoft is also required in the designing of an evaluation and feedback mechanism.
Suggestions and Action Points

As a result of the discussions, the following suggestions and action points have emerged:

1. Aiming at empowering the teachers, ‘Education Communities’ should be established, especially for teachers. It may help in making their innovation shine to make their skills come up. The NCIDE may develop such an online ‘Education Community’ for empowering the teachers of distance education.

2. Curriculum based video and web courses should be designed, developed, and shared for independent online learning. An online platform may be created by NCIDE with the intent to provide learning materials, digitally taped classroom lectures, supplementary materials, and links to state-of-the art research materials to the learners.

3. As there is an emerging need of the use of virtual laboratories support for providing engaged and active learning experiences in science education, the NCIDE may design such Virtual Labs for imparting experimental skills for the next generation.

4. In view of the increasing need of Multimodal courses, the NCIDE may design and develop such courses, which include elements like simulations, interactive diagrams, images, video and audio materials, and interactive quizzes etc.

5. There is a growing need for teaching-learning to be modular. These modules would be independent packages and can be combined in various ways and shared. Further, these modules can be revised independently. The NCIDE may design simple software tools so
that anybody can design such modules.

6. A national digital library of modules on each subject may be created by NCIDE, taking care of the copyright issues.

7. There is a need to explore Open Source learning. The Open Source, with the use of technology, will be able to generate a pocket or a basket from which one can take/pick and learn as needed. The use of Open Source in distance-learning system will be fruitful only if texts are put online. For example, a “wikipedia” may be used to enable the learners to navigate and retrieve information. The NCIDE may devise such an online platform for the learners, which shares Educational Modules in a dynamic, interconnected educational environment that is pedagogically sound, both time and cost efficient, and engaging.

8. Blogs and wikis are two new content development and management technologies that enable an interactive and intercreative engagement for peer learning. Aiming at the sharing of information of latest technology such blogs, podcasts etc., may be designed and developed by the NCIDE, both for the learners and the teachers.

9. In today’s knowledge society, there is a need to develop the intellectual capability of every person. A strategy should be developed where teachers’ training becomes a regular feature in the University system. The training should aim at orienting and preparing the teachers to use the new and emerging technologies, and empower them to use the right technology. There is a need to find a solution as to how technology can help in providing online teacher training programmes that could be initiated in Universities. To enable online teacher training using relatively simple application of technology, the NCIDE may work towards developing a learning-training solution.

10. There is a demand supply mismatch in the job industry due to low availability of competent human resource. Therefore, competency development is a key issue. The University needs to make education job oriented and link it with the industry. It needs to
focus on competency development and competency enhancement. This will also enable the learners to move on to new competencies in professional development. Therefore, the NCIDE may design and develop such job oriented innovative programmes to reframe the individuals as per the need of the industry.

11. There is a need to develop a fully online educational examination system. A Public-Private partnership to manage this is required, and Microsoft may be approached to help in the designing and developing ICT based evaluation and feedback mechanism.
## List of Participants

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Participants</th>
<th>Designation and Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Prof. Anoop Gupta</td>
<td>Corporate Vice President, Technology Policy and Strategy Microsoft Corporation</td>
</tr>
<tr>
<td>2.</td>
<td>Dr. S. Ahmad</td>
<td>Vice Chancellor, Jamia Hamdard University, New Delhi</td>
</tr>
<tr>
<td>3.</td>
<td>Prof. Kushal Sen</td>
<td>Professor, Indian Institute of Technology, Delhi</td>
</tr>
<tr>
<td>4.</td>
<td>Dr. Kavi Arya</td>
<td>Professor, Indian Institute of Technology, Bombay</td>
</tr>
<tr>
<td>5.</td>
<td>Prof. K. Mangala Sunder</td>
<td>Professor, Indian Institute of Technology, Madras</td>
</tr>
<tr>
<td>6.</td>
<td>Prof. Zahid H. Khan</td>
<td>Director, FTK Centre for Information Technology, Jamia Millia Islamia</td>
</tr>
<tr>
<td>7.</td>
<td>Prof. S.H. Ansari</td>
<td>Chairman, Directorate of Open and Distance Learning, Jamia Hamdard University (Jamia Hamdard) New Delhi-110062</td>
</tr>
<tr>
<td>8.</td>
<td>Dr. C. R. Muthukrishnan</td>
<td>Consulting Advisor, Tata Consultancy Services (TCS), Chennai</td>
</tr>
<tr>
<td>9.</td>
<td>Dr. Savita Datta</td>
<td>Director, Campus of Open Learning, University of Delhi</td>
</tr>
<tr>
<td>10.</td>
<td>Prof. A. K Bakshi</td>
<td>Director, Institute of Lifelong Learning, University of Delhi</td>
</tr>
<tr>
<td>11.</td>
<td>Dr Vinnie Jauhari</td>
<td>University Relations Head-India Hewlett-Packard, India</td>
</tr>
<tr>
<td>12.</td>
<td>Mr. Anjan Das</td>
<td>Confederation of India Industries</td>
</tr>
<tr>
<td>13.</td>
<td>Dr. Anil Wali</td>
<td>Managing Director, Foundation for Innovation and Technology Transfer (FITT), IIT Delhi</td>
</tr>
<tr>
<td>14.</td>
<td>Dr. Chandar Sundaram</td>
<td>Head-Academic Alliances, Microsoft Corporation India Pvt. Ltd., Bangalore</td>
</tr>
<tr>
<td>15.</td>
<td>Dr. Ramnarayan</td>
<td>Microsoft Corporation India Pvt. Ltd., Bangalore</td>
</tr>
<tr>
<td>16.</td>
<td>Dr. Latha Pillai</td>
<td>Pro Vice Chancellor, IGNOU, New Delhi</td>
</tr>
<tr>
<td>17.</td>
<td>Prof. Manohar Lal</td>
<td>Director, School of Computer and Information Sciences, IGNOU, New Delhi</td>
</tr>
<tr>
<td>18.</td>
<td>Mr. K. Laxman</td>
<td>Registrar, IGNOU, New Delhi</td>
</tr>
</tbody>
</table>
Annexure-2

Programme Schedule

1415 – 1430 hrs  Registration
1430 – 1435 hrs  Presentation of Flower Bouquet to
                  Dr. Anoop Gupta
1435 – 1445 hrs  An Introduction to IGNOU-NCIDE
                  Prof. M. Aslam, Director, NCIDE
1445 – 1455 hrs  Welcome Address
                  Prof. V. N. Rajsekharan Pillai, Vice
                  Chancellor, IGNOU
1455 – 1510 hrs  Inaugural Address
                  Dr. Anoop Gupta, Corporate Vice President,
                  Microsoft Education Products & Solutions
                  Technology Policy and Strategy, Microsoft
1510 – 1515 hrs  An Introduction to Roundtable
                  Dr. Latha Pillai, Pro-Vice Chancellor, IGNOU
1515 – 1620 hrs  Open Discussion
1620 – 1625 hrs  Summing up
                  Dr. Anil Wali, MD, FITT (IIT Delhi)
1625 – 1630 hrs  Vote of Thanks
                  Prof. M. Aslam, Director, NCIDE
Annexure-3

Participating Institutions

1. Indian Institute of Technology Delhi
   Sri Auribindo Marg, Hauz Khas
   New Delhi -110016

2. Indian Institute of Technology Madras
   I.I.T. Post Office
   Chennai - 600 036

3. Indian Institute of Technology Bombay
   Powai
   Mumbai – 400076

4. School of Open Learning
   University of Delhi, 5 Cavalry Lane
   Delhi - 110007

5. Jamia Milia Islamia
   Jamia Nagar
   New Delhi-110025

6. Jamia Hamdard
   Hamdard Nagar
   New Delhi 110062

7. Hewlett Packard
   6th Floor, Tower – D, Global Business Park
   Gurgaon – 122001, Haryana

8. Confederation of Indian Industries
   Udyog Vihar, Phase IV
   Gurgaon -122015, Haryana

9. National Institute of Open Schooling
   Institutional Area, Sect-62, NOIDA
   Gautam Budh Nagar, Uttar Pradesh-210309

10. Infrastructure Leasing & Financial Services Limited
    Indian Habitat Centre, Lodhi Road
    New Delhi-110003

11. Microsoft
    Microsoft Corporation (India) Pvt. Ltd.
    Bangalore-560071
About the Collaborators

NCIDE, IGNOU

IGNOU, with international recognition and presence, has achieved the distinction of becoming the largest University in the world with 1.8 million students on its rolls. The mandate of the University is to reach large numbers and the unreached sections of the society with quality education and this calls for innovative mechanisms that need to be implemented for increasing system efficiency and quality. The National Centre for Innovations in Distance Education (NCIDE) at IGNOU is mandated to promote and develop innovative mechanisms for the Open and Distance Learning (ODL) system. It acts as a resource centre for prototype development of innovative solutions through collaborations, employing the build-operate-transfer mechanism.

Microsoft India

Microsoft is a leading global player in the knowledge economy, based on information technology and is working to help shape the next generation of knowledge workers through technological solutions in learning. Microsoft has established Innovation Centres in India to provide customers and partners with a comprehensive set of programs and services. The goal of the centres is to foster innovation and growth in local software economies.

Foundation for Innovations and Technology Transfer (FITT),

Foundation for Innovation and Technology Transfer (FITT) is an autonomous organization of IIT Delhi mandated to proactively market its Intellectual ware. FITT has been at the forefront in devising innovative ways to create linkages with business and community and to enable knowledge transfer for sustainable benefits. Being a premier technology provider, FITT has established networks with several end-users and potential collaborators for progressive research and development alliances and offers various interactive formats.
NCIDE - An Overview

The National Centre for Innovations in Distance Education (NCIDE) at the Indira Gandhi National Open University (IGNOU), Maidan Garhi, New Delhi, is an all-embracing facility for promoting, supporting, engineering and disseminating innovations in Open Distance Learning/Education system. It is a ground for nurturing bright and inquisitive minds whose ideas and explorations are expected to revolutionize the Open and Distance Learning (ODL) system and thus provide for transforming India into a learning society.

The goal of the Centre is to develop a culture of continued search for new and innovative solutions to issues and problems on the way of University’s mission to offer seamless education across the various levels, achieve cost efficiency in its operations and provide borderless access to quality education and training.

To achieve this goal, NCIDE:

- promotes, develops and pilots innovations in all aspects of the ODL system and operates on the principle of Build-Operate-Transfer (BOT) strategy.
- provides intellectual and technological support to the stakeholders for the growth and development of the ODL system.
- is a resource centre for prototype development that ensures quality assurance, cost- and learner-related effectiveness, and system efficiency.
- encourages innovations in distance education through collaborations within IGNOU and with other institutes in India and abroad.

Activities
i. Innovative Learning Solutions
ii. Research and Development
   iii. Capacity building
iv. Collaboration and Networking
v. Documentation and Dissemination of Innovations in ODL system.
vi. Innovation Management System

Contact

Director
National Centre for Innovations in Distance Education
Indira Gandhi National Open University
Block-G, Zakir Hussain Bhawan
New Academic Complex,
Maidan Garhi, New Delhi- 110068 (INDIA)

Phone: 91-011-29536413, Fax: 011-29536398

Email: ncideignou@rediffmail.com

Websites: [http://ncide.ignou.ac.in/](http://ncide.ignou.ac.in/) | [http://www.ignou.ac.in/ncide/index.html](http://www.ignou.ac.in/ncide/index.html)