International Seminar

On

Skill Development through ODeL: Innovations, Entrepreneurship, Employment for Inclusive and Sustainable Livelihoods

March 09-11, 2017

Organized by:
Staff Training and Research Institute of Distance Education
Indira Gandhi National Open University
Maidan Garhi, New Delhi – 110068, India
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International Seminar on “Skill Development through ODeL: Innovations, Entrepreneurship, Employment for Inclusive and Sustainable Livelihoods” and Silver Jubilee Celebration of Indian Journal of Open Learning (IJOL)

ABSTRACTS

Date: March 09-11, 2017
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Prof. Khondoker Modadden Hossain, Pro Vice Chancellor, Bangladesh Open University, Dhaka, Bangladesh
Sh. Udai Upendra, Founder and CEO, The HR Company, Gurgaon

Key Note Speakers

Ms. Dakshita Das, Joint Secretary, Ministry of Road Transport and Highways, Govt. of India
   Empowering Women through Policy and Training
Prof. C.B. Sharma, Chairman, National Institute of Open Schooling (NIOS), New Delhi
   Skill Development Programmes through Open Schooling
Prof. Santosh Panda, Professor in Distance Education, STRIDE, IGNOU, New Delhi
   Technology, Open Distance Learning, and Skill Development: Challenges and Possibilities
Prof. P.R. Ramanujam, Professor in Distance Education, STRIDE, IGNOU, New Delhi
   Changing Roles and Characteristics of Open Universities under the Influence of Technologies
Prof. Ignatius G.P. Gous, University of South Africa, Pretoria
   Engendering Effective Learning Skills for the Distance Education Learner: Theory, Practice and a Program
Dr Jenny Roberts, University of South Africa, Pretoria
   Future and Changing Roles of Staff in Distance Education: A Study to Identify Training and Continuous Professional Development (CPD) Needs
Dr. Manoj Killedar, Director, School of Architecture, Science and Technology, YC Maharashtra Open University, Nashik
   Skill Education MOOC with M Learning and E.R.P.
Foreword

It is an aphorism to say that historical evolution of human beings has been dependent upon their ability to adapt to new skills to survive in the new environment. Skill Development has been an incessant need of the time; and Open Digital e-Learning (ODEL) is undoubtedly the most appropriate and relevant medium to meet this need. The Government of India has been emphasizing the need for skilled population, which can contribute towards nation building. India today is in a favourable position, as a large percentage of its population is young and therefore can reap the benefits of the democratic dividend.

IGNOU possesses the capacity to make sizable contribution to the development of skills amongst young people and adults alike. It runs 227 academic programmes, of which a large number belong to the area of professional and vocational education. The University strives to build a professional character into its higher education programmes by linking them to employment. We hope that open learning and e-learning system in general and IGNOU in particular will work towards meeting the new challenges as they arise from the world of work and shall thus bridge the gap between education and employment.

It is a matter of pleasure that STRIDE is conducting the International Seminar on Skills Development through ODEL: Innovations, Entrepreneurship, Employment for Inclusive and Sustainable Livelihoods. The moment is right for deliberating on the very critical issue of skill development through ODEL. I am confident that the teachers, practitioners, researchers and all others who are participating in this seminar will enrich the proceedings and will make a valuable contribution in the growth of skill development.

I congratulate STRIDE under the leadership of Prof. P.K. Biswas, Director STRIDE, and all the other Faculty members for conceptualizing and organizing this International Seminar. I also express my appreciation for the quality work done by Dr. Anita Priyadarshini, Seminar Coordinator and the Seminar Committee for impeccable arrangements of this Seminar.

I wish the Seminar all success.

(Ravindra Kumar)

01st March, 2017
New Delhi
PREFACE

It is an honour and privilege for the Staff Training and Research Institute of Distance Education, IGNOU to host this International Seminar on “Skill Development through ODeL: Innovations, Entrepreneurship, Employment for Inclusive and Sustainable Livelihoods” at New Delhi, India.

In September 2015 STRIDE organized a National Seminar on “Open and Distance Learning in India: Present Status and Future Prospects”. The theme of the present International Seminar which is being organized after 17 months of the previous seminar is more specific and relevant in the present context. We at STRIDE indentified *Skill Development through Open Distance and e-Learning (ODeL)* as the theme of this Seminar, as skill development is most important for the future of the country. We also believe that education systems will become more and more open and hence ODeL is the best way forward for creation of a learning society.

Developing countries face common challenges with the need for capacity building of untrained workforce being a major one. Universities across India and in other parts of the world can play a valuable role in providing technical and professional programmes. Education has to be able to meet the needs of industry and thus bridge the gap between education and employment and entrepreneurship.

In this Seminar, we hope to raise important issues such as - Can Open Distance e-Learning (ODeL) system provide an effective channel for meeting the skilling needs of the youth through various programmes? How far ODeL has become successful in developing skills amongst the youth of a nation? What ODeL can contribute to sustainable livelihoods in the near future? We hope that some of these vital questions will be answered during this Seminar.

I am pleased to inform that this Seminar will also celebrate the Silver Jubilee of the Indian Journal of Open Learning (IJOL) being published by STRIDE, IGNOU since 1992. We look forward to contribution from participants in this Journal.

On this occasion, I would like to thank Prof. Ravindra Kumar, Vice Chancellor, IGNOU for his whole hearted support to STRIDE in the organization of this Seminar. I would also like to thank all members of the Organizing Committee, Academic Committee for the Seminar, Academic Committee for IJOL and Sub-Committees as well as plenary speakers and participants who have contributed their papers and posters for the Seminar. I am grateful to all STRIDE faculty and staff for their support in the Seminar and in publication of special issue of IJOL.

I also record with appreciation the hard work put in by the Seminar Coordinator, Dr. Anita Priyadarshini, towards the conduct of this Seminar.

On behalf of STRIDE and Organizing Committee of the International Seminar, I extend warm welcome to all the participants from different countries to this Seminar and wish them a very pleasant stay in New Delhi, India.

Finally, I wish you all a very fruitful Seminar.

Prabir Kr. Biswas
Director, STRIDE
Chairperson, Organizing Committee

01st March, 2017
New Delhi
About the Seminar

In September, 2015, nations across the world made a commitment to take forward the unfinished agenda of the Millennium Development Goals (MDGs) and identified 17 Sustainable Development Goals (SDGs) that would lead towards ending poverty and hunger, ensuring inclusive and equitable education, gender equality, and decent work for all, amongst other developmental goals.

In the context of developing countries, it becomes imperative to work towards raising economic standards by creation of jobs through innovations in entrepreneurship and employment. India’s National Policy for Skills and Entrepreneurship (2015) states that skill and knowledge are the driving forces of economic growth and social development for any country. The nation is committed towards the making of a ‘Skilled India’. Developing countries also recognize that skilling their human resources through positive affirmative action can bring about development and economic growth. Universities and other academic institutions have an important role to play in bringing about change.

The Open and Distance e-Learning system with its inherent flexibilities has the potential to reach the unreached. It can provide a meaningful channel for meeting the skilling needs of the youth through its academic, vocational, technical, professional, extension and lifelong learning programmes. In doing so, the ODeL system can prove to be a game changer for fulfilling the skill, re-skilling, up-skilling needs of the youth from organized and unorganized sectors of work.

In view of the significant role that ODeL can play in skill development, a three day International Seminar on Skill Development through ODeL: Innovations, Entrepreneurship, Employment for Inclusive and Sustainable Livelihoods is being organised by STRIDE, IGNOU.

The objective of the Seminar is to deliberate and reflect upon the issues and challenges related to skill development through ODeL in developing countries. The Seminar aims to provide an opportunity for the teachers, academics and practitioners to present research papers, share their experiences, showcase best practices and innovations, as well as recommend future plans for skill development through the ODeL system.

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- Monitoring, assessment and evaluation
- Entrepreneurship ecosystem, social entrepreneurship models
- Best practices

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1. Engendering Effective Learning Skills for the Distance Education Learner: Theory, Practice and a Program

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Contact Tuition will never be able to meet the demand for tertiary education, and therefore millions of students will continue to study at a distance. It is, however, a worldwide reported reality that students are not well prepared to learn, let alone to learn on their own as in distance education settings. The formal and official teaching of Effective Learning skills and strategies is therefore crucial for the sake of the future of the students, their lecturers, the institutions who need an acceptable throughput, and society where their skills and qualifications are to be applied. Given this reality and the debilitating consequences for student success, it is surprising that not sufficient focus is devoted to effective learning skills. Proper attention should be given to understanding and especially supporting the Distance Education Learning Challenged Learner.

In this paper, a literature review is used to identify which learning skills and strategies are effective and which are not, according to the interdisciplinary field of Mind, Brain, and Education Science. Then attention is given to the challenges facing distance education learners, especially to aspects involved in studying effectively at a distance, such as the reality of being isolated, a-synchronicity, the need to be self-directed, and the ability to function metacognitively without having the luxury of immediate feedback from lecturers or peers, amongst other aspects. The final part is the description of a program aimed at empowering distance education students to become skilled as self-directed, life-long learners. Effective learning is more than mastering some study methods. It is embarking on a journey towards meaningful life goals, focusing on launching habits for life-long learning. This wide-ranging program touches upon aspects of Identity (student attributes, strengths and characteristics), Mastery (learning skills, strategies and habits) and Legacy (using and applying acquired knowledge and skills in meaningful ways). The program is delivered electronically to make it easily accessible. It is developed to be delivered as part and parcel of the teaching of subject content, because teaching content alone is not sufficient to prepare learners for the 21st century workplace. The program is guided by the subject lecturer, and is constantly monitored and updated by the program developers on the basis of feedback by users. The ultimate aim is to engender effective learning skills, strategies and habits in ODeL students.

Keywords: Contact Tuition, Mind, Brain, and Education Science, Identity, Mastery.

2. Role of Open and Distance Learning (ODL) Institutions in the Skill Development of Youths through Massive Open Online Courses (MOOCs)

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Skilled workforce plays very important role in the socio-economic development of Nation. Since the inception of the National Democratic Alliance government in India in the year 2014, Government of India is extensively focusing upon enhancing the skill of the people with the help of various training programmes, which are directly correlated with the available employment opportunities in the market. These programmes have been designed in such a way that after completion of it learner would get gainful employment in service/social sector. However, in India due to diversity in the area, economic inequality etc. there is urgent need to revisit the methodology adopted to train young generation. There are various methods through which skill could be acquired like offline training programmes, online training programmes, on the
job training programmes, learning by doing in the family run businesses etc. In the offline training programme there is limitation of providing training to very small number of people who are physically present at that location. However in the online skill development programme such limitations don’t arise.

In the light of the above Open and Distance Learning (ODL) institutions could play a very vital role in the delivery of skill development programme aimed at creating employment opportunities at the local level. This paper will explore the various ways through which youths of the country could be trained in the various skill development programmes delivered in the form of MOOC’s with the help of ODL institutions in India.

Keywords : MOOCs, Skill Development, Training, Youths.

3. Learner Support Services in Open and Distance Learning: An Evaluation

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“The ultimate aim and objective of Open and Distance Education is to empower its learners into self and independent learners.”

Learner Support Services are essential to the successful completion of programmes by distance learners in a variety of situations. Student concerns are of utmost importance for effective functioning of a distance education institution as well as sustainable development of distance learning programmes. In this research study, an attempt has been made to find out major issues and problems of learners under the Directorate of Open and Distance Learning, Dibrugarh University (DODL, DU), Assam. This paper further examines the learner support services provided as a support for learner at a distance. The paper focuses at assessing the implementation and utilization of services as expected and experienced by learners.

The results of this study highlighted that students were dissatisfied with the programmes, especially in provision of learner resource materials, feedback mechanism and up-to date ICT (Information and Communication Technology) implementation. The outcomes of this research study are not encouraging particularly from the learner’s point of view. Although DODL, DU is still in developing stage and evolving continuously; the learner support issues and retention problems of the student population have to be addressed as major issues for improvement of the institution. Students need more support particularly because they are from different geographical, financial, social background. Counselling need to be improved, through training the academic counsellors in the tutorial matters and appropriate guidance as to what is expected by them while handling distance learners.

The study highlighted the need for effective learner support services, access to reference materials, and efficient administrative procedures in order to fulfill learners’ needs and to solve the retention problem. These findings are important element in empowering the learners and the academic counselors to interact with distance learners with necessary understanding and sensitivity. It is hoped that the results of the study have indicated some areas in which further research would be needed. There are some pinpointed areas that can help in programme planning and policy formulation which are important for success of distance learning programmes in the institution in particular and ODL system in general.

Keywords: Open and distance learning, Retention, Information and Communication Technology.
4. Promoting Innovation in IGNOU: A Case Study of Innovative Academic Programmes of the University

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The Indira Gandhi National Open University (IGNOU), as a pioneer of the ODL system, champions the cause of accessibility, and reaches out to all who either wish to update themselves or wish to rejoin the mainstream through education, many of whom are learners who are left unserved by the formal system, and also includes those who are located in remote areas. As the main motto of IGNOU is to reach the unreached, it becomes essential for the university to constantly innovate in the ways and means to reach out to these sections and offer programmes, which are relevant and offer employable skills, which will help them, achieve sustainable livelihood options. The Sustainable Development Goal 9 of the United Nations also adopted by India, to be achieved by 2030 targets to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Keeping this goal in mind, it is incumbent for all organisations and especially educational institutes to foster innovative ecosystem. Therefore, this study is being conducted with the aim to analyze (i) IGNOU’s ability to innovate with reference to the Programmes being offered, (ii) the infrastructure in IGNOU to facilitate such innovative ideas, (iii) the interplay of the stakeholders in the innovation ecosystem of IGNOU, and (iv) the steps which can be taken to improve the role of Incubator/Accelerator at IGNOU. This is a descriptive and exploratory study and is based on two programmes which have been awarded Gold Medal for Innovation by IGNOU. The study is expected to compel the decision takers in the system to focus on providing the right ecosystem in terms of processes, which will facilitate innovation in the distance learning process by involving all the relevant stakeholders as an essential component in course design for the programmes of IGNOU.

Keywords: Innovative ecosystem, Stakeholders, Infrastructure, Reach, Acceptability.

5. Open and Distance e-Learning (ODeL) for Skill Development, Innovations and Entrepreneurship of Society in India

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After independence, India had made tremendous progress in the field of education, though mostly quantitative in nature. Earlier, education was available only to the elites in society, and a large majority of poor and marginalized people were remained illiterate. Therefore, in order to ensure access and education of a reasonably good quality, some alternative system capable of supplementing the role of conventional system has been evolved and distance education was one of such alternatives. The success of distance education courses led to the establishment of Indira Gandhi National Open University in India, which is now rated as one of the best distance courses university in the world. The Open and Distance Education has the great potential to cater the needs of the societies in present and future time as using Information and Communication Technology (ICT) tools. The phenomenal growth and development of Open and Distance Learning system all over the world has drastically changed the educational scenario everywhere currently. In present scenario, the various Open and Distance e-Learning (ODeL) programmes for Skill Development, Innovations, Entrepreneurship, Employment for Inclusive and Sustainable Livelihoods through MOOC Programmes are being offered by universities at National and International level. IGNOU is also gearing towards the development of interactive multimedia content and learner support through web-based platforms. The e-Learning market is booming world over and is predicted to follow an upward swing with more and more institutions, organizations and individuals implementing
and adapting this mode. The power of e-Learning lies in its potential to provide the right information to the right people at the right time, place and pace. With advent of Information and Communication Technologies (ICTs), the delivery of educational programmes has witnessed a paradigm shift from print based teaching-learning to e-Learning.

In this aspect this research paper will explore in detail the important role played by ODeL and how ODeL system will demonstrate its cost-effectiveness, flexibility and innovative applications through Information and Communication Technologies (ICTs) tools for the vast multitudes of learners. This system can play a vital role in increasing the access to higher education in the country and its overall effect on the socio-economic development of the country.


6. Use of Mobile Apps to Enhance the Access to ODeL Students

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Now a days, use of Smartphones and Tabs have rapidly evolved from a fringe accessory to an absolute necessity. They have permeated almost all spheres of our lives, allowing us to access information and communicate with one another anytime anywhere. We spend the majority of our time using Mobile Apps on these gadgets. As they provide a better user experience, we prefer Mobile Apps than the web. It is no different for the education sector. For the education sector, mobiles and smartphones provide a better and more engaging way of imparting education. Newer avenues of teaching and learning are opening up through mobile apps, which in turn is tremendously enhancing education like never before. We can leverage the potential and develop suitable Apps to serve our ODeL students and enable them to get the services better, faster which can save time, money and efforts.

This paper aims to show some statistics of Apps usage, role of Mobile Apps for the ODeL students, the kind of services to be offered through them, how to categorize the Apps and organize them, tools and technological requirements to develop them, how to offer these Apps to the ODeL students and to highlight some issues and challenges.

Keywords : Mobile Apps, Access, Smartphones.

7. Learner Support for Skill Development: A Critique of the Support System of a Distance Teacher Education Programme

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The National Skill Development Mission underscores the need for developing skilled workforce for various occupations. Teacher education however does not fall within the purview of the “Skilling India” mission. This assertion is based on the literature that upholds teaching as a profession, requiring prolonged and specialized education for developing competencies that are far more comprehensive and complex than occupational skills. However, some of these competencies comprise skills, like that for using ICT, counseling, classroom communication, developing blue print for assessment, and so on, and the support system required for developing them through the open and distance learning mode needs as much consideration as that of occupational skills. This paper, therefore, focuses on the skills that the Certificate Programme for Professional Development of Primary Teachers (CPPDPT) offered by the Indira Gandhi National Open University to in-service teachers, aims to develop and examines the support system, the programme uses for developing these skills.
This paper outlines the essential aspects of the CPPDPT programme for describing the context of the study. Thereafter for determining the adequacy of the programme’s support system for skill development, it examines the elements comprising it like, the instructional design of the programme, the theoretical inputs, the duration of the practical component in general and that of hands on training in particular, the activities designed for skill development, and the experts engaged for guiding skill development practices. It infers that the theoretical component offers rich and relevant discourses for imparting the knowledge required but the weak attempts to integrate theory and practice, coupled with the lack of trained human resource at study centers, which are the sites for practical activities, are likely to constrain skill development. It concludes that for assuring the quality of the skill development processes, the instructional design of the programme needs to include mechanism for integrating theoretical and practical components. It also suggests that developing relevant videos can significantly compensate the shortage of expert trainers at study centers and offer a powerful means of supporting skill development.

**Keyword:** Skilled Workforce, In-service Teachers, Trained Human Resource

8. **The Sustainable Rural Capacity Building for Tourism in Pithoragarh Himalayas: A Study into Skilling Local Community for Nation Building**

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The understanding of capacity building is complex and vague. It has not been used as a development objective generically but as a measurement to realize short-term results. A more explicit understanding of capacity building is based on the concept of four types of capital: social, human, physical, and financial. The physical and financial component is there to support the social and human component of the capacity building. Further, India has vast possibilities of rural economy development with its 68% population still residing in rural India. Further, 70% of the total land area of India comes under rural area, which consists of 5,98,000 inhabited villages vis-à-vis to only 7,935 towns and 4,041 urban areas as per Census of India (2011). The rural population as well as the rural land area, constituting around two thirds of the total population and total land area of the country respectively, remains predominantly backward with respect to diverse development indicators. Rural India mostly depend on agricultural sector with the growth rate much lower when compared to secondary and tertiary sector, thereby upsetting the capacity building modeling for nearly two third of the country. This requires for the revamping of the rural studies towards re-defining of the new economic strategy towards skilling the rural populace on to the new supplementary sector.

The U.N. Report (1999) for the Human Resource Development Requirements of the Tourism Sector in India agrees that the most significant feature of the tourism industry in India is its capacity to generate large-scale employment opportunities. The tourism’s resurgence will be important for people living in Tourism rich (Himalayan under this study) natural areas to benefit economically from the potential of those areas along with effective mobilization of both infrastructural and manpower resources and from the potential tourist income. Tourism offers the only better avenue by which people living in these communities can derive economic benefits. As already established the local communities do hold the future growth of Indian tourism. The 12th Five-Year Plan (Report of the Working Group on Tourism, 12th Five-Year Plan, 2011) also looks forth to pro poor tourism for poverty reduction on one side as well as to develop high skills for the sector to grow considerably on the other. The forecasts in tourism sector in India do point to heavy expected shortfall in trained human resource requirements as well as the institutional requirements for capacity buildup. But to build India into a strong tourism rich nation by exploiting new non-urban tourism destinations and thereby arming with the trained manpower coupled with highly decentralized institutional build up, the human resource capacity expected is gigantic. Conceptually speaking, capacity building for the shortage should go together with community driven long term growth. Such development of human resources and employing in the local environment shall
be the sustainable growth. Tourism hence has not only to create skilled capacity as required by the sector but to also upgrade/certify the skills of the existing service providers to reduce the skill gap. The study is a practical insight into the establishing of Sustainable Capacity Building through the case study of Pithoragarh, Uttarakhand, popularly known as the ‘Mini Kashmir’.

Keywords: Rural Populace, Tourism Industry, Trained Human Resource.

9. Quality Assurance Model through Evaluation of Potential OERs – A Case Study for the Inorganic Chemistry Courses for UGC-CBCS

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There is a knowledge explosion in the world today, but all the information we find around are not valid, useful, or accurate. Evaluating sources of information that a teacher/student may find useful and may be thinking of considering using in his/her teaching-learning process is an important research activity in the process of utilizing web resources as OERs. The information that is available in the web is immense and in bits and pieces. Any one particular website cannot give us the complete picture of a particular topic/subject. For example, it may be predicted that anyone attempting to research what’s known about covalent bond would have to read over 1,000 opinions on the subject which is quite problematic. Similarly, for information on other topics, not only is there a huge quantity available but with a very uneven level of quality. It is very difficult to rely just on any website. In this process of browsing and choosing the websites, the teacher/student would make decisions all the time, and thus make responsible choices that one would not regret later. Skill is required to evaluate websites. While evaluating them myself, I have been overwhelmed with too much information or too little. Many times I felt like accepting whatever I found. That is the time I thought of systematically evaluating them before using them. One must be aware that no one judged the quality or accuracy of information found on the World Wide Web before it is published and so one must evaluate the websites that one may consider of utilising as OERs. This evaluation the author has done using a checklist which would help one to evaluate websites for Authority, Accuracy, Purpose, Content, Currency, Design, Organization, and Ease of Use. This evaluation rubric can be utilised by other teachers/students to determine whether or not a particular site should be considered as a source of information for the particular teaching-learning situation. Also they would learn why these different aspects are to be considered when looking to use a website as a source. In the process of my evaluations of the websites which are potential OERs for the Inorganic Chemistry courses of the UGC-CBCS I have built a repository of the most-useful websites on particular topics which would be helpful for other teachers/students as well who are looking for websites as OERs for these courses/topics. The author has presented all these in the paper.

Keywords: OER, World wide web, websites.

10. Capacity Building through Blended Approach – A Case for the Science Teachers Taken up by RCSE at IGNOU

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Blended learning aims to rethink the way a class can be structured, the way time is used. It also tries to allocate the limited resources in an innovative way. There may be cases when the learning environments cannot provide digital access to each and every student. In those cases, blended learning comes into play. It can include an intentional shift to online/digital instructional delivery for a portion of the day in order to boost learning and productivity.
What does productivity mean in this case? It includes improvements to teacher access of data and its potential to inform instruction. Well, it has been seen that formal teacher education has often failed to bring out the spark in the teachers. So a blended learning approach for capacity building was thought to be very innovative and it was followed.

The Raman Chair for Science and Education (RCSE), an integral part of IGNOU’s School of Science (SOS), at IGNOU was established to promote mathematics and science education. The RCSE signed an MOU with Intel for the program “Empowering Educators to Innovate” in 2011. Through this program, capacity building workshops were conducted for School Principals and Teachers using the relevant Technology Tools. Prof. P.T. Manoharan, Raman Chair Professor, IGNOU decided to take up the project “Empowering Educators to Innovate” and Dr Kamalika Banerjee was the coordinator.

Intel® Teach and IGNOU had partnered in this unique program which aimed at equipping educators with relevant tools to hone their pedagogic approaches in a transformed learning environment with technology to enhance math and science competencies of students.

Through this unique program, trainee teachers were provided with the pedagogical and technical skills needed to integrate technology into their classroom teaching. In this paper the author would like to share how blended approach is useful for capacity building through her experience for this teaching training programme for science teachers and the details of the blended approach is to be discussed here.

Keywords: Blended Learning, Online/Digital Instructional Delivery, Learning Environment

11. Gender Specific Skill Development for Vulnerable Women to Climatic Disasters of Coastal Area of Bangladesh for Sustainable Livelihood: Opportunity of ODL

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Climate change is the main concern of the present world and climatic disasters as well. Most of the climatic disasters such as cyclones, storm surges, saline water intrusion due to sea level rise, droughts, floods, etc. have negative impacts on the people especially the women and girls. Most of the world’s women and girls are deadly vulnerable to climatic disasters than their male counterparts. In this context the women and girls of Bangladesh have to face more vulnerable situation due to the geographical location of this country, poorer economic condition because of the lack of diversified skill to maintain livelihood, lack of political stability, cultural constraints to women mobility etc. As a disaster prone country, the coastal area of Bangladesh has to face various problems than other area of this territory. People of the coastal area especially the women and girls are susceptible to climatic disasters for their multiple activities in family, for instance, Nasreen (2012) stated that “during and aftermath of a disaster men in rural areas lose their places of work while women shoulder the responsibilities to maintain households’ sustenance. But most of the women in coastal area of Bangladesh are involved in household activities like house-keeping, procuring and cooking food, collecting water, child care. Although their work is essential for household, but their work is totally unrecognized. Therefore, gender specific skilling make their work recognized and they may be financially solvent. This skill development of women and girls of coastal area can ensure their sustainable livelihood which can contribute for sustainable development for the nation. Skill development for the small scale industry makes the women frontier for fighting with climate induced disasters. In this context, Open and Distance Learning (ODL) has the opportunity to develop skill of women and girls of coastal area. This present study mainly aims at identifying the gender specific skill development initiatives that helps to sustainable livelihood and the opportunity of ODL. This study is conducted by using quantitative method through structured survey questionnaire for primary data. On the other hand, some related articles, books, seminar reports, conference proceedings, periodicals are reviewed for primary data.

Keywords: Climate Change, Small Scale Industry, Sustainable Livelihood.
12. Motivating Rural Population for Skill Development through ODeL

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Educating the vast rural population and inspire them to hone their individual skills is really a formidable task for the educators and renovators of ODeL in a vast country with diverse cultures and geographical as well as climatic variances as India. The rural society of India is basically agrarian in character. With the onslaught of modernity and its accessory elements, cracks have appeared in the strong foundation of the agrarian economy and society at large. It may be noted that modernism itself is not corrupt. It is the negative implications of some boons of modernity that modern facilities and other accessories come under the scanner. If the corrupt and malign aspects are removed then modern ideas and practical efforts can guide the rural population towards sustainable growth, development and security of livelihood. Distinguished culture, geographical aspects and climatic conditions determine the livelihood and overall economic scenario of a particular geographical area. In view of the diversity of these elements, the skill development need to be studied and made practicable as per demand and ideal availability of conditions and scope of development and farther spread. If we are to educate the rural masses through the mode of ODL and introduce opportunities for their skill development through the ODeL (Open Distance e-Learning), then we have to tackle a number of hurdles related to climatic and geographical aspects to fulfill the objective of ODeL. Skill of an individual can be both inherent and acquired. The objective of ODeL in this case is sustainability of individual skill of the rural masses and its development. This Research Paper attempts to explore the potentiality of the skills present in the rural population and hone their hidden skill for a well sustained livelihood.

Keywords: Rural Society, Livelihood, Sustainability of Individual Skill.

13. Capacity Building through Blended Learning Approach: A Case Study of IGNOU Programmes

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The industrial sector in India today is witnessing a huge gap between demand and supply of trained human manpower. There is ample evidence that there are jobs not being filled. We have an adequate supply of new entrants into the workforce as well as existing workers looking for new jobs who do not have the requisite skills for these openings. The talent supply that the industry needs today has to meet growing business requirements. It has been realized by the policy maker that there is a need for capacity building programmes as per the industry needs. Keeping this background, School of Vocational Education and Training (SOVET), IGNOU has developed programmes thereby contributing towards capacity building.

The objectives of the proposed paper are (a) to find out the types of skills delivered through blended learning approach and (b) to examine the benefit received by the learner/trainee through blended learning approach. The paper will be based on primary and secondary source of information. Data will be collected through published and unpublished reports. For the primary data, tool will be developed to collect the data from the sample learners/trainees.

Keywords: Human Manpower.

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The present paper is an attempt to comment and reflect the role of Electronic Commerce in the context of Indian market. e-Commerce is the widely used concept these days especially in the twentieth century. Today a person with low skills sitting on his chair in front of a computer can access all the facilities of the Internet to buy or sell the products. This paper shows how the e-Commerce platform spread their trap in Indian market and converting the physical market to electronic market in a very less time. Starting from early 1991 to till twentieth century it plays an important role in Indian economy for various users. For increasing the use of e-Commerce in developing countries the B2B, B2C e-Commerce is implemented for improving access to global markets for firms and customers in developing countries. Online railway ticket system, low cost airline ticket system and various other models has been introduced for the benefit of potential customers and consumers till 2015. Various e-Commerce companies like Flipkart, Amazon, Snapdeal, E-bay and many more e-Commerce companies has been introduced till 2015. The purpose of the paper is Indian e-Commerce, mobile commerce, innovations in logistics etc. The paper also focuses on how the investment in e-Commerce system growing rapidly as it is the future of India. For this paper we have relied on secondary source of information.

Keywords: e-Commerce, Internet, digital etc.

15. Project LIFE – A New Way of Sustainable Livelihoods

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National Rural Livelihood Mission (NRLM) encourages public sector banks to set up Rural Self Employment Training Institutes (RSETIs) in all districts of the country. RSETIs transform unemployed rural youth in the district into confident self-employed entrepreneurs through need-based experiential learning programme followed by systematic handholding support. Banks are completely involved in selection, training and post training follow-up stages. RSETIs partner with others, including the institutions of the poor, to realize their mandate and agenda. There are nineteen RSETIs in the state of West Bengal. The RSETIs also provide the PMEGP’s (Prime Minister Employment Generation Programme) training programme.

The Ministry has formulated a Project for "Livelihoods in Full Employment (LIFE)" under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in April 2015. The "Project LIFE – MGNREGA" aims to promote self-reliance and improving the skill base of the MGNREGA workers, and thereby improving the livelihood of the workers, so that they can move from current status of partial employment to full employment status.

Department of Self Help Groups & Self Employment, Govt. of West Bengal provides various trainings for skill development. The department has organized several training programmes of SHGs to enable them to produce quality goods so that they can get remunerative prices from their products. The various skill development training programmes organized by the department are on the different trades. Some of the very popular schemes running successfully by Govt. of West Bengal are SVSKP (Swami Vivekananda Swanirbhar Karmasasthan Pokalpo). West Bengal government’s SHG&SE Department, West Bengal Self Employment Corporation Ltd. and SSEUY department provide skill development and vocational training to the youths between age group of 18 yrs to 45 yrs.

Based on a review of available studies and secondary data, the paper highlights several features of the spread of these two institutes. The present paper attempts to examine the role and present status of Project LIFE, and RSETI.

Keywords: Entrepreneurs, MGNREGA, NRLM, Project LIFE, RSETIs.
16. **Skill and Skill Gaps: An Interrogation into Sectored Interventions of States under Skill Development Mission of Government of India**

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India’s skilling capacity was estimated at 7 million during 2013-14. Apart from meeting its own demand, India has the potential to provide a skilled workforce to fill the expected shortfall in the ageing developed world. The twelfth five year plan has categorised the following Priority Sectors for skill development based on major criteria such as a) Sectors that will create large employment, b) Sectors that will deepen technology capabilities in Manufacturing, c) Sectors that will provide Strategic Security, d) Manufacturing Technology Sectors for Energy Security, e) Capital equipment for India’s Infrastructure Growth, f) Sectors where India has competitive advantage, and f) Micro Small and Medium Enterprises Sector – The base for the Manufacturing Sector – employment and enterprise generation.

Despite huge potential, large percentage of it still remains untapped. Maharashtra, the topmost performing state in impartation of skill has trained just about 2 lakh people in short term skill courses in 2015-16 (M/o Skill Development and Entrepreneurship, September 11, 2016)

The present paper makes a state and sector wise analysis of the progress. It also envisages understanding of sector wise understanding of existing training infrastructure, Central and state policies and skill gap analysis (in some major sectors). It is found that the state of Andhra Pradesh has the maximum registered food units in the country and is expectedly one of the top regional clusters in the sector. Further, new emerging clusters in MP and Jharkhand are expected to attract a bulk of manpower. The Pune-Mumbai region is growing on the account of high urbanisation resulting in high demand. West Bengal region is dominated by players in marine processing and labour is supplied from the neighbouring state, Odisha. Amongst the emerging sectors, top-notched electronics sector, the healthcare and defence sectors are leading the demand for electronic products.

**Keyword:** Skilling Capacity, Priority Sectors, Training Infrastructure.

17. **Skill Development for Inclusive and Sustainable Development through ODL**

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Education implies the process of teaching, training and learning, especially in schools or colleges or Open Distance Learning or e-ODL (ICT, e-learning and m-learning), to improve knowledge and develop skill. India today stand poised to reap the benefits of a rapidly growing economy and a major demographic advantage that will see the country having the largest pool of young people in the world in next few decades. There is now need to utilise this young talent pool in institution building and for creating excellence in the field of secondary education with integration of academic and vocational courses and capability building. This is precisely the requirement of a ‘knowledge society’ and India has to be a leader in the world. The 2011 census indicates that literacy level is about 74.04% with nearly 314 million non-literates. The 21st century is the century of IT revolution. To meet the challenges of time, ICT is a major factor in shaping the new global economy and producing rapid changes in society. Computer ETV, internet, E-mail, print and electronic media, digital devices, FM Radio etc. e-Learning is naturally suited to instance learning and flexible learning. AICTE, MHRD, AVT, BAT, FICCI, IIT, DGET, JCVE, NCVT, NIOS, VET, MHRD, IAMR etc. Institutes or bodies coordination are important for skill Development. An Engineer earns a higher wage or salary than a worker ,who works in the factory. Why? Because an engineer has skills and
abilities to generate more output. The worker in the factory does not have this skill; therefore, he is paid much less, skill is valued, because it contributes to the process of production by raising the level of efficiency or level of productivity. Stakeholders are members of those groups with an interest in a particular activity, at any stage. Thus the interest may be associated with the design, development, production, marketing, distribution or utilisation stages of the process. The interests may also be primarily financial, political, social, developmental or community. The number and range of groups with an interest in the different stages of open and distance approaches to skill development is immense, and each of these stakeholder groups will have a different type of interest. Consumers will have different needs and aims and providers will see different opportunities in the development and provision of skill development through ODL. Strategies for promoting use of skill/vocational education in skill are given: Staff development, Readily Available technical assistance, Administration support, Development of video & software programs, Integrate planning, Involvement of FICCI, CII, Digital India, Skill India, Industry and skill Institute etc.

**Keywords:** ODL, ICT, e-Learning and M-learning


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When we talk about education, especially in India, we are still trying hard to “reach the unreached”. In such situation “e-Learning in Open and Distance Mode” can be considered as milestone. Skill development through ODeL is a challenge but on the other hand it is a great opportunity for our nation towards sustainable development. Skill development for rural population is essential as the rural youth is diversifying towards various livelihood options. Moreover, trend of earning income from more than one source and by more than one/two family member is gradually becoming norm in rural India. Specialization towards diversification and then diversification towards specialization is a cycle of development, and rural skill development can give explicit heights to this development.

It is unfortunate, that we (urban-metropolitan and so called developed) plan for rural and tribal communities by sitting in our rooms. A community based approach is most important to be adopted for reaching the goal of inclusive and sustainable development. The present paper throws light on the community based (rural) livelihood issues through some experiences and research from the villages of Madhya Pradesh (District Raisen and Khandwa).

Skill development – the structure, activities, networking, seasonality, problems and possibilities of the community need to be understood; and further need based program selection/course preparation/course delivery need to be done. The paper presents some of the findings on Rural Livelihood patterns and their Diversification (Village Rampurkalan and Papda, District Raisen, M.P.).

Delivery of the programmes – experiment sharing of Mobile Study Center for 50 girl students of CFN (Certificate in Food and Nutrition) programme with involvement of Gram Panchayat as “Nodal Center” for ODL; village Singot District Khandwa.

Community based approach to delineate feasible plan of action, programme delivery to the emerging students could be a great manner to reach the unreached.

**Keywords:** unreached, rural, community, inclusive, sustainable development.
19. e-Learning Facilities in Open Universities – A Case Study of India

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Technology has the potential to make available learning information at the door steps of the distance learners. The various innovations in the field of e-Learning have made learning easier for learners. The contemporary technological creation prompts associated stakeholders to widely employ countless opportunities of e-Learning platforms in teaching and learning. Since the Open and Distance e-Learning (ODeL) has clout to develop multi skills, e-Learning possibilities is highly exploited in many Indian open universities. In this context, the study attempt to explore the existing e-Learning facilities in various open universities. The study revealed that most of the universities proffer diverse e-Learning platforms; for instance, Indira Gandhi National Open University (IGNOU) has e-Gyankosh, Gyandhara, Online Admission and re-registration facilities, you-tube Archive, Education broadcasts and so on. While, state universities like, Netaji Subhas Open University provides learning management system (LMS), video lecture, and other links to support learner’s needs. The M.P. BHOJ Open University has in place Bhojvani, Bhojdarshan and Eduset as e-Learning platforms. Tamil Nadu Open University has EMPRC, CDC and Language lab to extend help to distance learners. This study extensively analyzes the existing e-Learning facilities in central and state open universities of India. As e-Learning facilitates learners in the development of literacy skills such as media literacy, technology literacy and information literacy; open universities must urge to utilize technology in a much more rigor tempo, so that the learner’s demand to equip them to fit for future work places would be accomplished.

Keywords: e-Gyankosh, Gyandhara, Bhojvani, Bhojdarshan and Eduset, EMPRC, CDC.

20. ODeL Enabled Conceptual Model for Training Healthcare Functionaries for Managing Outbreak of Emerging Diseases

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In the 21st Century, applications of Information and Communication Technologies have contributed immensely to education, economic development, and social changes across the globe. The reduced cost of electronic gadgets like laptops, smart phones and internet have empowered people to connect to the internet to increase their learning and knowledge. Parallely, ODeL which is the integration of open learning philosophy and distance education pedagogy with the emerging e-Learning technologies have revolutionised the way teaching, learning and training is taking place worldwide.

Today, the healthcare scenario is radically changing at a fast pace. This change is not only in the direction of newer investigative technologies and management strategies, but also a number of diseases are emerging like ebola, H1N1 and older ones remerging like plague etc. Many of these diseases have the airborne mode of transmission resulting in their spread over a large population and are often associated with a high morbidity and mortality. The health care functionaries are not geared to deal with this emergent emergency situation, since their basic training lacked information about these diseases. Thus it is required to not only orient, but to train and update about the changing every day situation, to help manage and contain the epidemic or outbreak. The fastest and the most cost effective method of reaching out to these health functionaries is through an ODeL system.

This paper reviews the evolving trends in providing teaching, learning and training through ODeL in general and with special reference to healthcare. It also reviews how ICTs are being used in sensitising and training healthcare functionaries for management of situations like critical care, emerging disease outbreak etc. The different ODeL models have been described in this paper. The features of web of
things and web of thoughts which may be an important component of the future ODeL has been highlighted in this paper. Finally, this paper suggests a dynamic conceptual model for training healthcare functionaries for managing outbreak of emerging diseases.

**Keywords**: ODeL models, web of things, emerging diseases

### 21. Skills Development of Rural Manpower through Open and Distance Learning System in India

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“Education, vocational training and lifelong learning are central pillars of employability, Employment of workers and sustainable enterprise development.”

Training and skill development is an important aspect of India’s educational and developmental objectives, however the conventional approach to education is hard pressed to meet this need. Consequently, the open and distance learning system had been introduced to train people in essentially theoretical fields and extended to the vocational and technical fields. The national and state Open University has played an important role in the development of rural people. The national and state University plans to provide access to higher education for large segments of population and, in particular, disadvantaged groups such as those living in remote and rural areas including working people, homemakers and other adults who wish to upgrade or acquire knowledge through studies.

India has among the lowest proportion of trained youth in the world. The quantitative dimension of India’s skill development challenge is that 80 percent of new entrants to the workforce have no opportunity for skill training. Against 12.8 million per annum new entrants to the workforce, the existing training capacity is only 3.1 million per annum. The Prime Minister’s National Council on Skill Development has endorsed a vision to create 500 million skilled people by 2022, whereas, at present, only about 2 percent of the workforce has skill training.

The national skill development policy provides for integration of skill development into the national development policies such as developing infrastructure, reducing poverty and decent work agenda. It will also make efforts to promote acquisition of knowledge in a rapidly developing and changing society and continually offer opportunity for upgrading knowledge, training and skills in the context or innovations, research and discovery in all fields of human endeavor. The Open University has provided the great platform to the people. Governments increasingly see education and, in particular, technical and vocational education and training as having a key role to play in the economic success and social stability of a country.

**Keywords**: Education, Employability, Empowerment, Skill Development.

### 22. Skill Development through ODL for Female Workers of RMG Sector: A Study on Some Selective Garments Industry of Gazipur District in Bangladesh

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The market of the garments industry of Bangladesh has been spread all over the world within a few decades. The Ready-Made Garments (RMG) industry is one of the most important sectors and it has a great impact on the national economy of Bangladesh. The largest amount of foreign currency is earned
from this sector every year and it gradually increases day by day. The garments industry also plays significant role to remove the unemployment problem in Bangladesh. Most of the workers of that industry are female and they come from disadvantaged, disasters and poverty prone area of Bangladesh for the betterment of their livelihood. Usually they are uneducated even some of them cannot read and write their name correctly. From the last few years, Bangladesh Government provides scholarship for the girl students. As a result, the scenario is that they can read and write but they are not skilled at any particular field. They do not have any skill development training to develop their skill for enhancing their efficiency. If they are skilled, they would be more efficient in their own field. For this employed group could be skilled by using ODL which is the most effective learning system for that type of group of female workers. Because, they work whole day in the factory and they do not have the opportunity to study in the conventional system. ODL system is the unique system for them because they can learn at their own place and convenience while they stay far away from the institution. Here, Bangladesh Open University is the only institution for delivering education and training for that type of disadvantaged group. This present study mainly aims at identifying the skill development initiatives for the female workers that help to sustainable livelihood and also discover the opportunity of ODL. A combination of both qualitative and quantitative method is used for conducting this study. A structured questionnaire is used for quantitative data and 50 randomly selected female workers were interviewed for qualitative data.

**Keywords:** Unemployment, Skill Development Training, Sustainable Livelihood.

### 23. Teaching of Assamese Folk Performing Arts Form through ODL System (Special Reference to Traditional Puppet Theatre of Assam)

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Society is an institution formed by the combination of nature and the mind of man. Man expresses his nature by creating, recreating and organising, which guides and controls his behavior. In ninetieth century some antiquarian from England and German linguistics tried to analyse the behaviors of their downtrodden. Then they found a new field of learning and it became popular as ‘folklore’. According to the renewed folklorist Richard M. Dorson folklore may be divided into four groups, viz. (i) Oral literature, (ii) Material culture, (iii) Social folk customs, and (iv) Folk performing arts. The society that existed before the rise of cities is folk society and their performance is folk performing arts. It includes folk-songs, folk dance and folk drama.

Puppet theatre (Putala nach) is one of the most popular folk performing arts form of entire India. There are two types of puppet dance form in India, i.e. shadow puppet and strings puppet. But in Assam we found only the tradition of string puppet. Basically there are 4-5 artists in a puppet theatre group. For making Assamese traditional puppets they used bamboo, wood and kuhila (the Indian cork) as raw material. Now the folk performing arts form putala nach of Assam is in danger of extinction.

Now ODL has now great impact in our society. More and more universities provide online classes and technical support to the learners, as there is more and more demand for it and as well as the increasing need for on-the-job base, skilled base vocational education. Keeping in mind the relevance of skill development through ODL system the research problem for the present investigation is to study how to develop folk performing arts form (puppetry of Assam) as a course of study through ODL system. The present investigation would also analyze the vocational potentiality and try to find out those possibilities how to develop this aspect.

**Keywords:** Folklore, Puppet theatre, On-the-job Base.
24. Interactive Channel (Teleconference) for IGNOU Learners: A Study of its Effectiveness for Nursing Students of School of Health Sciences (SOHS)

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Indira Gandhi National Open University (IGNOU), India is mandated to provide higher educational opportunities to one and all, a principle that acts to democratise higher education. In its effort to provide student support services and to deliver open and distance programmes it employs a diversified delivery system. One of the delivery systems used till recently was the interactive channel Gyan Darshan (GD) II. GD-II was an exclusive satellite based TV channel to provide interactive education. It offered distance education through the virtual classroom mode and provided access to a digital repository of educational content at IGNOU. However in June 2014, its telecasts were stopped.

The objectives of this study are to (i) study how the interactive channel was helpful to the students of nursing of SOHS before it went off the air, (ii) study the methods adopted by coordinators/counselors to interact with the students of nursing after the closure of the interactive channel. For this study, two groups of learners will be considered. One group will be the learners who were enrolled in the SOHS for nursing during the period when the channel was on air i.e. before June 2014 and attendance at the teleconference sessions was mandatory for them. The other group will be of those learners who were enrolled after the channels went off the air. A survey method will be used for which a questionnaire will be developed. The questionnaire will contain both closed and open ended questions pertaining to the study. Interviews will also be conducted wherever required. The data will be analysed and presented in percentage.

The study is expected to bring to light the effectiveness of the interactive channel in the (i) access and availability of the teaching-learning resources, and (ii) facilitating interactive learning of the nursing programme of SOHS.

Keywords: Satellite Based TV Channel, Virtual Classroom, Digital Repository.

25. ICT Based Approaches to Bridge the Gap Between Learners and Teachers of Distance Education

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Information and Communication Technology (ICT) is playing a vital role in open and distance learning (ODL) to meet the requirements and expectations of the learners in large scale. It is difficult to perform the same using any traditional institutional system due to its limited resources. ICT has various proven tools and technologies to meet the requirements of a learner at various phases of learning cycle viz. the admission phase, the learning phase, the evaluation phase, examination phase, result declaration phase and finally the certification phase as a service.

The uses of ICT is making major differences in the learning of students and teaching approaches. For that reason students use computers more often and for a much larger range of applications. Several studies reveal that students using ICT facilities mostly show higher learning gains than those who do not use. ICT must be suitably integrated into the Open and Distance Learning (ODL) system, not only to ensure wider outreach and delivery but also to make the pedagogical process more relevant, user-friendly, accessible and updatable.
The continued use and development of ICTs within education will have a strong impact on: What is learned, how it is learned, when and where learning takes place, and who is learning and who is teaching. Information and Communication Technology (ICT) is a prime resource to overcome such limitations. Having come a long way from correspondence via print material, the technology that currently drives most of Open and Distance Education are audio-teleconferencing, video conferencing, audio-graphic communication and broadcast via TV/radio. In this paper I would discuss the following:

(i) The concept of distance education (DE), and the role of Information and Communication Technologies (ICTs) in this particular form of education; (ii) Overall system, program, and course design procedures in using ICTs; (iii) Teaching principles with special attention in using ICTs; (iv) What is known about learning and the special needs of learners and corresponding implications for ICTs in distance education; (v) Why development of e-content is essential for distance learners; and (vi) How ICT helps to bridge the distance between the learner, instructor and the market by transcending barriers of space and time.

**Keywords:** Learning Cycle, Pedagogical Process, Transcending Barriers.

### 26. Educational Needs of Weaver Communities

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Handlooms had glorious past in Indian sub-continent specially in Varanasi and Kashmir. Indian handlooms are the human creations and part of Indian heritage. Weaver industries play a major role in economy of India. With the changing time our education system has been changed but weavers are unable to keep pace with this present system. In some remote areas, these weavers are not properly introduced by the rules, regulations, grants and skill development programmes running by the Government, they are unable to unleash their talents due to low literacy rate or illiteracy.

To fulfill the educational needs, Government is running many programmes. Basic Education, Technological Education and proper skill training can be proven the upliftment for their talents as well as economy of India. There is need of Vocational Education a type of ‘Learn while you Earn’ system. According to oxford dictionary Vocational is directly related to employment, usually in a specified sector or trade. Education is referred to as vocational if it involves skill training or if it prepares the learners to enter directly into skilled or semi-skilled employed. There is need of Vocational Empowerment of this community by different programmes. That should be designed by the Government according to their grass root educational needs.

This Quantitative Paper attempts to find out the educational needs of the weaver communities. This paper examines the educational needs by Questionnaire and semi-structure interview of 50 weavers as a sample in U.P. State.

**Keywords:** Weaver Communities, Vocational Education, Educational Needs

### 27. Skilling Youth for Nation Building — Policy and Initiatives

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Skill means generating ability and capacity through deliberate, systematic and consistent effort to make the youth capable for generating ideas (cognitive skills), things (technical skills) or interpersonal skills. Youth represent the most dynamic segment of the population and about 65% of India’s population is under 35 years of age. The focus of the Government is on youth focused development. The Youth should
be “active drivers” and not merely the “passive recipients” of development. Government effectively formulates different policies and takes initiatives in different sectors to cater to the needs of different segments of youth in different segments of society by developing different skill development programmes with private and other sectors. It aims at bringing people together to discuss on importance of technical and vocational education and the role of training and the development in polishing these skills making youth employable in both local and global economies.

The Government has introduced National Youth Policy, 2014 with the Vision “To empower youth of the country to achieve their full potential and through them enable India to find its rightful place in the community of nations”. The goal of govt. institutions like NSDC, SSC etc. and all skill development programmes is to create a bundle of opportunities for developing talents of Indian youth and to upgrade different sectors for skill development to provide employability at national and international level. Comparing the different initiatives taken in skill development training centers and vocational centers in the effective implementation of skill development policy for generation of skilled and employable youth by government and other sectors to meet the target of 500 million skilled workers by 2021-22.

The objectives of the study are (a) to study the effectiveness of skill development policies and initiatives of government for generating employable youth, (b) to analyze the skill development policies and initiatives of government, and (c) comparison of different levels of skill development for different institutions (govt. and other sectors like Retail, Automobile, Tourism etc). The paper will be based on (i) Comparative analysis of secondary data with use of random sample, (ii) the population of study will be 100 youth and recent govt policies and initiatives for skill development, and (iii) tools and techniques for data collection– questionnaires, interviews and secondary data.

Keywords : Youth Focused Development, Skill Development Policies, Employable Youth.

28. ICT Enabled Skill-based Programmes through ODeL for Empowerment of Marginalised Women in Rural India

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The marginalised women in rural India need economic, social and political empowerment. However the economic and social empowerment is essentially needed to get some degree of autonomy, quality of economic involvement beyond their presence as poorly paid workers, acquiring information, knowledge, skills, and also participation without any gender discrimination in day to day activities and in turn inculcating a feeling of equality instead of subordination among women. The marginalised rural women in India may not have adequate education, may be no education too due to their poverty, economic and social concerns.

The paper mainly aims at introducing some skill-based programmes using Information & Communication Technologies (ICTs) through ODeL mode to such marginalised rural women for their economic and social empowerment. Some of such programmes include Childcare, Healthcare, House-keeping, Gardening, Poultry and other such similar programmes as these programmes does not require any formal school/college education. All such programmes will be designed, developed in form of Audio/Video programmes in respective local languages, where no need of any formal education for understanding and learning, but only mother tongue is essential. A framework for such programmes has already been done.

The programmes will be delivered through smart handheld devices such as Tabs (Tablets), where all Audio/Video programmes along with life coping skills are preloaded in it and offered to the Women, who admitted for such programmes with free of cost. One time cost is involved for a programme design
and development and recurring cost for Tabs. Since it is a social cause towards empowerment of marginalised women in rural India; it is the responsibility of each individual Institution and also State & Central Governments of India to provide financial support for such a great cause. To begin with, the Institution like IGNOU would have to provide financial support to start as a pilot project for empowerment of at least 500 marginalised women in neighbouring States of Delhi. The same will also be extended across India, with a financial and operational support of State and Central Governments in India so that the marginalised women in India will get economic and social empowerment and in turn get self sustainability, dignity and finally fit for life. It will also become a part of Digital India initiative of Govt. of India.

Keywords: Marginalised women, ICT, ODeL mode, economic empowerment.

29. Vocational Training through ODeL: Scope and Opportunities to Empower Rural Youth

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Vocational training has been institutionalized in higher secondary education for many decades in several states of the country. However, vocational training received a fillip in the last two years, with the establishment of Ministry of Skill Development & Entrepreneurship (MSDE) by the government of India to oversee the flagship project ‘Pradhan Mantri Kaushal Vikas Yojna’. The idea is to empower the youth of India by imparting industry-relevant skills and enabling them to secure a better livelihood. Thanks to the National Mission on Education through Information and Communication Technology (NMEICT), open distance e-Learning programs are rapidly gaining ground in providing skills, knowledge and attitudes to large sections of the populace. This paper examines the scope and opportunities in providing vocational training through various ODeL platforms to bring hitherto untapped demographies into the skill training ambit.

Key words: MSDE, NMEICT, ODeL, Vocational Training, Skilled development.

30. The New Ways of Collaborations, Alliances and Networking Best Practices in ODL System

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Competition among the educational providers was very weak during 1990 to 2000, so the survival of educational institutions was very easy and institutional progress was good. But during 2000 to 2016 the competition among the educational institutions is very high, so survival of institutions either it may be Govt. institute or private institutes without bringing productive changes in management of educational system is very difficult. Productive changes include management change, curriculum change, adopting best practices, collaborations, networking, alliances etc. Due to high speed revolution in implementing Information and Communication Technologies (ICTs) in educational sector and also in industrial sector, the tremendous demand arises for strong collaborations and partnerships. Authenticated data base should be developed on strong collaborations, partnerships, internal collaborations, external collaborations, PP model, PPP model, MoUs etc; and best practice them to gain mutual benefits of ODL institutes and its sustainability in this competitive era or Information Technology era. For better understanding “Best Practices in ODL system”, the faculty and academics should be given training on “Best Practices of ODL System” and “Alliances and Networking of ODL systems” practiced by various ODL Universities, Distance Education Universities, Directorates of Distance Education etc. The important role and advantages of
“Alliances and Networking in ODL systems” should be developed in a data base form to best practice it by all the ODL Universities, Schools and Divisions. The data base of best practices on ODL system available should be provided to all the schools, so that they can utilize them while designing and developing new programmes, new courses, new alliances etc. In this context by developing internal collaborations and networking among internal schools and also internal departments if any should be discussed further in this paper. Mainly this paper deals with ODL system, collaborations and adoption of best practices. The author is also planning to explain various collaborations possible in ODL systems to design, develop new programmes and possibility to enhance the performance of the schools.

**Keywords:** ODL system, Partnerships, Best practices of collaborations

### 31. Current Status of the Use of Technology and Innovations in the ODeL Institutes of Assam with a Special Focus on the IDOL, Gauhati University and KKHS State Open University (KKHSOU)

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Open and Distance Learning (ODL) is a system in which the teachers/counsellors/consultants and learners/students need not necessarily be present face to face either at the same place or same time and is flexible regarding modalities and timing of teaching and learning as well as the admission criteria without compromising necessary quality considerations. The ODL is a learner centric system of education in which there is no age bar as well as classroom compulsions on the part of a learner. More so, apart from the rigorous classroom interactions between the teachers and students in the conventional mode of education, in ODL the learners have got other facilities of learning such as online or virtual classrooms, teleconferencing, video conferencing, computer conferencing, online examination systems, online form fill up, online access to educational resources, Self Learning Materials (SLMs), e-library, e-Learning portals, community radio, study centres, examination centres, contact centres in the nearest possible areas, flexibility in the classes as well as examinations etc. So, the fact is that if one even has a cursory glance in the education scenario of various ODL institutes, then it can be found that there exists the extensive use of technology and innovations in these institutes which makes things really convenient and attractive for the learners in the ODL institutes. This very feature of Open and Distance Learning (ODL) i.e. the lack of physical proximity between the teacher and students and also the distance between the institution and the student, brings in the role of Information Technology at play. Tremendous changes have occurred in the field of education over the years as emerging technologies, especially the widespread adoption of the internet, have created new opportunities for teaching and learning. The latest technologies and innovations employed in ODL institutes are now increasingly blended with traditional instructional formats, what is known as Blended Learning Environments. In the 21st century, emerging technologies are sprinkling at extraordinary speed and these innovations have turned this world into a small global village. In the field of distance education, these innovations have bridged the distance between the institute and learners to a large extent.

Now, coming to our seminar paper, the focus will be on the study of the use of technology and innovations in the ODL institutes of Assam with the primary focus being on the Institute of Distance and Open Learning (IDOL) and KKHS State Open University (KKHSOU). It is a known fact that the various universities of Assam, both single mode and dual mode, are having distance education wings such Gauhati University has IDOL, Dibrugarh University has the Directorate of Distance Education (DDE), Tezpur University has the Centre for Open and Distance Learning (CODL), Assam University also has a distance wing. Apart from that, the KKHS State Open University (KKHSOU) and IGNOU, Sikkim Manipal University are also imparting education in the ODL mode. These institutes are using extensive technology and innovative methods for the convenience of the students. For example, IDOL, GU has the Bodhidroom, the e-Learning portal, Radio Luit, the Community Radio Service, the IVRS, Bulk SMS, e-library, Virtual
classrooms etc. Similarly the KKH State Open University also has the Jnan Taranga, the Community Radio Service, the virtual classrooms, websites, e-resources etc.

In today’s competitive world, the success of the ODL system depends upon innovations, which would increase the efficiency and quality of the system. This can be done through the identification, adaptation and introduction of the existing innovations in the system or through the introduction of new innovations.

Our study will be an exploratory one applying the empirical research technique as most of the data will be based on observation method. Apart from that the interview method will be adopted and also the secondary tools of data collection will be used too. The main focus of the study will be to explore the use of technology and innovations in the ODL institutes of Assam with special focus on IDOL, GU and KKHSOU. In short, the authors in this study make an attempt to study and analyse the current scenario of distance education in the state of Assam, with reference to two of its leading distance education providers i.e Institute of Distance and Open Learning (GU IDOL), Gauhati University and KKH State Open University, with much focus on the use of ICT and Innovations.

**Keywords:** Information Technology, Open and Distance Learning (ODL), Blended Learning and Innovative/Emerging Technologies/Methods

### 32. Satisfying the Training Needs of Employees through e-Learning – The SBI Way

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This paper presents a unique cost effective model evolved by Strategic Training Unit (STU) of State Bank of India (SBI) to effectively satisfy the training needs of over 2,00,000 employees of different age groups, performing different roles and spread across different locations in India. The e-Learning material is classified into three different categories viz. (i) e-Lessons (Compulsory for Managerial Staff), (ii) e-Capsules (Compulsory for Clerical Staff), (iii) m-Nuggets (Very compressed & Mobile friendly)

All employees are encouraged to join e-Learning courses for effective learning at their Own Pace, Place & Time (OPPT). Learning experience of the participants is enhanced by the use of graphics, animation and voice-over in e-Lessons. After completion of e-Lesson, participants are subjected to a test for evaluation of their understanding of the topic. Those obtaining more than 60% marks in the test are declared pass and can print their Certificates on-line. Each and every employee is supposed to complete minimum number of e-Lessons, e-Capsules, m-Nuggets every year; linked to their current role in the Bank and depending on their hierarchy in the Bank. To make it obligatory on part of the employees, five marks are awarded for successfully completing all the requisite e-Learning linked the captioned role of the employee in the Performance Appraisal Form (PAF).

e-Learning has helped SBI in imparting necessary training and upgrading skills of its Human Resource in this ever changing and challenging Banking Scenario. Bank has been able to save considerable amount of money spent on Skilling Human Resource by shifting to Distance e-Learning (DeL) instead of following only Traditional Class Room Training (TCRT). Moreover, by using DeL, Bank has been able to save lot of Man days of its employees lost in TCRT resulting in prompt customer service at the Branches.

**Keywords:** Cost Effective Model, Own Pace, Place & Time (OPPT), e-Lessons, e-Capsules, m-Nuggets
33. Meeting the Challenges of ODeL: OSOU A Case Study

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The journey of learning from conventional education to correspondence education, from ICT based
distance education to open and distance education is a long process and during this journey ODeL is felt
as the ultimate say in education where everyday content can be revisited, revised and updated to suit the
need. Starting from video cassettes to microchip, from compact disc to internet is a continuous experiment
of e-Learning through computer. Odisha State Open University, Odisha, India has proved the experiment
of ODeL a success. The objectives of this study are: (i) To know the importance of e-Learning in Open
and Distance Education, (ii) To know the relevance of ODeL in expanding education, (iii) To establish
implementation of ODeL technologies in Odisha State Open University, Odisha, India, and (iv) To know
the role of OSOU in skill development through adopting ODeL.

The study is purely theoretical. Data will be collected based on statistical performance of OSOU. The
investigator will collect data from different types of books, Journals, e-papers, articles written by different
authors and different activities conducted by OSOU.

Odisha State Open University (OSOU) has proved the experiment of adopting ODeL to reach the
unreached successfully. Its developed contents are available digitally and learners have successfully
used it along with printed materials. This attitude of using ODeL has created positive motivation among
learners. It has created good impact in the public as well. Email has played an important role in establishing
communication between administration and academics; course coordinator and course writers; course
writers and editors and finally course coordinators/counselors and learners.

Student support services like pre-admission/post admission counseling in the form of organizing various
meeting with massive use of ICT, organizing counselors meeting, orientation, subject experts meet with
the help of ICT in frequent manner and establishing regular link with the learners are some of the
important features of this newborn university which are not available in other older university in such a
large scale.

Keywords: Reach the Unreached, Student Support Services.

34. Open and Distance Learning: The Opportunities of Higher Education
to the Marginalized Sections of the Society

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As per demand of social and economic development, Open and Distance Learning is fast becoming an
accepted and indispensable part of the main stream of educational system. The globalization of Distance
Education provides many opportunities for developing countries for the realization of education system
wide goals. The Open & Distance Learning (ODL) has successfully established its effectiveness in
delivery of quality and affordable education to the nations, particularly, to the marginalized groups (SC/
ST/OBCs/Jail Inmates) in the society. Through the Open Universities, 24% population is getting benefits
by taking higher education. We can also seek to achieve the ambitious target of increasing the higher
education access rate to 35% from the current and further in next plan this rate would be higher through
the approach of Open and Distance Learning.

Keywords: Globalization, Affordable Education, Marginalized Groups.
35. Use of Open Education Resources (OERs) in India – Problems and Prospects

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The OER movement is the “in-thing” in Open and Digital Distance Learning. An OER is a learning material that is freely available for use, remixing and redistribution in accordance to the varied levels of licensing attached to it. Institutions across the world realize the importance of providing seamless access to online learning resources, but have been traditionally constrained by the issues related to copyrights. OERs, perhaps provide the way out.

In India, there is a feeling that institutions have not taken to OERs in a big way. What are often indicated as OERs is online materials that cannot be scientifically stated as an OER. In this scenario, the current study dwells on the following aspects:

(1) Definitions and dimensions of OERs, (2) Current status of OER policies in India, (3) OER awareness among Academicians - The case of Kerala, and (4) Policy suggestions for OER development in India.

The study will include administration of a questionnaire to academicians in the higher education field working in various institutions in Kerala to assess their levels of awareness as regards OERs, their utility and prospects. Such a study is relevant in the context of large scale globalization of education and sharing of quality educational resources. The conceptual framework of OER use and reuse shall be analyzed threadbare in the context of emerging IPR based issues. The comparative study of OER policies of Indian institutions will reveal their current levels of preparedness in the global context. The issues related to Intellectual Property Rights and their assignment and transfers (which are at the core of OER policies) shall be brought out in the context of Indian institutions. It is expected that the final paper will give a bird’s eye view to policy makers to develop and implement an OER policy for Indian institutions in the context of a globalized education scenario.

Keywords: OER, OER Policy, IPR, Globalization of education.

36. Potential of ODeL in Reviving Rural Skill India — Example of Wardha Case

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There are many studies on how rural India needs to be revived through various strategies. One of the main concern for the policy makers is the migration of people to urban areas and making provisions for more prosperity in rural area. In order to address this issue the Government of India established separate divisions for promoting ‘skill India’ with more emphasis on Rural Skill India. Rural India is besieged with many issues and problems which are reflected in many case studies on ‘Farmer suicides’. The paper proposes to discuss on what happened in Wardha which is an agriculture district. It has good natural resources with good forest area and river beds. This place also has a historical importance during pre-independence era. It was flourishing as one of the good agriculture beds recently. However, this scenario changed fast in recent decades. Wardha was in news for the wrong reasons i.e. “Farmers Suicide”. What, why & where it all went wrong need to be known.

The present rural India is still struggling with basic amenities and availability of skilled manpower. There are various models and concepts are available for developing rural India. We argue that ODeL
should not be compartmentalized separating itself from other models and systems. Taking the example of Wardha, the paper discusses a perspective on how ODeL can be integrated to bring in more prosperity to the rural India through skill development. IGNOU is the largest Open and Distance Education University spread across the country with many competent academics at regional level. In the concepts like community development, rural skills, these academics can play a big role. It is argued that IGNOU need to adopt strategies to tap the academic power available at regional level to help the rural skill mission. The role regional centres and study centres can play depends on the policy of the university. The university has regional centre in almost all states of the country with many learner support centres with academic counselors supporting. It is concluded that the success of ODeL for rural skill India entirely depends on the development of centre of excellence in regional centres.

**Keywords:** Rural Skill India, Farmer Suicides, Regional Centres.

### 37. Enhancing Employability Skills of the Youth through Open and Distance Learning

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One of the goals of education is to facilitate gainful employment. Employability skills are crucial for this (Moran & Rumble, 2004; OECD, 2012). Skills development in the youth pays dividends by reducing unemployment, inequality and poverty, and promoting economic growth. Employability skills, also called as transferable skills, core work skills or key competencies are those skills that improve the prospect of employability of the person. The EFA report of UNESCO (2012) points out that these ‘transferable skills’ are not taught from a textbook, but can be acquired through good quality education. Yet employers often indicate that these skills are lacking in new recruits to the labour market. A report by the McKinsey organization (2012), drawing on survey data from nine countries consisting of Brazil, Germany, India, Mexico, Morocco, Saudi Arabia, Turkey, the United Kingdom and the United States, found that less than half of employers (43 per cent) were able to find the skills they needed in entry-level workers. Hence there is a need to promote employability skills in the young which will not only ensure their proper employment, but also enhance the productivity of the enterprises and allow for inclusive economic growth where all sections and strata of the society can contribute.

To achieve this goal, the open and distance learning can come in a big way to help realize this goal of enhancing the employability skills in the young so that this greatest human resource does not go waste. The importance of open and distance learning has been highlighted in meeting the needs of those who cannot access campus resources (Moran & Rumble, 2004). The characteristic features of ODL including flexible learning, workplace based learning, accessibility, reduced cost, technology enabled learning etc. will ensure a wider reach and faster accomplishment of the task. Hence we need to turn to the potential of open and distance learning if we are to realize the targets set by the sustainable development goals of the United Nations in enhancing the employability skills of the youth.

**Keywords:** Gainful Employment, Productivity, Flexible Learning.

### 38. Coir Pith Blower: A Cost Effective Innovation

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Coir fiber is used in a variety of applications, such as mattresses, yarn, ply, geo-textiles, ropes etc. It is a natural fibre extracted from coconut husk. During the production of coir fibre, a dust that holds the coir fibre in place, known as coir pith, is produced as a by-product. It is wet and granular with some amount
of short coir fibre mixed in it. It is observed from some time that it is quite difficult to move the pith around the industry either in dry or wet state.

To overcome this difficulty and save the amount of time and other resources spent on this, an innovative way to replace the conventionally used conveyor belts was thought out. I built and experimented several concepts and brought out the best idea into practicality. The final result of this concept worked to give more than good results. By the end of experiment, the improvised final concept carried the pith to more than 60 feet. This limit, however, is dependent on the power of the air blower used, the machinery specifications and the dryness of the pith itself. This mechanism has the potential to increase this limit to more than 150 ft. The proposed mechanism consists of simple air blower, a hopper with under-patent-approval design and PVC pipes and few jigs and fixtures to hold the entire mechanism together in place.

The conventional method adopted by most industries is a “Belted conveyor system”. This requires considerably high investment in terms of initial investment, maintenance and repair. A comparison of price lead to realize a significant saving. The saving on investment alone was found to be 2 lakh INR. Considering long term goals and expenditures such as, maintenance and repair, the proposed new machinery will save more in it’s lifetime than any existing machinery in the market. Added advantages also include the aspects of speed of operation: approximately >20 times faster, and power consumption: less than any alternative in the market.

Keywords: Investment, Saving.

39. An Analytical Study of the Policies, Initiatives, and Approaches in Skill Development

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The research paper examines various International and National Policies/Schemes/Initiatives operating in India in the arena of Skill Development. The study further examines the approaches and methods applied in the delivery of the skill development programmes and examines the effectiveness and the role played by ‘Open, Distance, and e-Learning Method’ of the skill development.

Apart from the initiatives of various Inter-Governmental and International Institutions like the United Nations, World Bank, Asian Development Bank, etc. and the Government of India, there are various International and Indian Universities and Institutions offering courses through Open, Distance, and e-Learning modes available either free of cost or on very marginal fees, the study also examines the impact of these initiatives on skill building of various categories of the youths in the country. From last more than two decades, emphasis of the Government of India has been on the skill development of youths and accordingly every social sector. Ministry launched several schemes in the skill development. Mandatory Corporate Social Responsibility (CSR) for the Corporations has also attracted them to operate in the skill development sector. The approaches adopted by the Educational Institutions, Universities, Corporations, Governments, Inter-Governmental and International Organizations are of different nature.

The study analyses various approaches of the skill development being used by a diversified segment of the stakeholders and examines the effectiveness of the Open, Distance and e-Learning methods in Indian context.

Keywords: Skill Building, Corporate Social Responsibility.
40. Need for Skill Development of Rural Youths through ODeL in India

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In India, rural areas do not inherit skilled human resources and technological infrastructures is unable to develop knowledge. Such community stagger under the strain of widespread poverty, unemployment, increased social hardship as well as public unrest. The traditional approach to educational provision can no longer meet the needs of this new milieu, therefore the need to expand the provision of vocational and technical education to equip people with practical skills and competencies has become an imperative. Therefore, the capacity of ODL to reach large audiences for academic and theoretical disciplines can effectively be translated to vocational and technical skills courses. As rapid technological developments bring about significant changes in the socio-economic reality of contemporary society and by, it is important for people at all levels to develop an understanding of the importance of vocational and technical training and its contribution to the quality of life.

Indira Gandhi National Open University (IGNOU) is offering many programmes which are in the category of skill development, vocational and technical education and continuing education. These short courses are directed at improving the skills, competencies and abilities of youths for enhanced workplace effectiveness and to enable them recognize and utilize investment opportunities around them for financial empowerment and personal development. The NOS has established a number of certificate study programmes in agriculture using the KVK centres as study centres, together with multiple media such as print, audio-visual material, teleconferencing and counselling. Courses include subjects such as plant protection, water management for crop production, oyster mushroom production, poultry farming and the like.

Web-based training or E-training, an innovative approach to distance learning, can be effectively utilized for delivering knowledge to individuals anywhere in the country. The path for economic development and prosperity through the skills training and ODeL as the modality for vocational education and training that allows vast number of people to take advantage of education and training. There is a need for a paradigm shift in the training approaches in the formal and informal sector for developing skills attuned to the needs of the society. Most of the employment in rural India is in the ‘informal’ sector, with employees working in relatively low productivity jobs. Provision of appropriate skills may thus be an important intervention to increasing the productivity of this workforce. Here open and distance learning mode institution can play important role by providing flexible and cost effective education to improve skills of rural youths.

Keywords: Rural Areas, Technological Developments, Web-based Training.

41. In India Skill Development is Not Luxury, It has Become a Necessity

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Skill development programs help individuals by generating opportunities to be employable by providing them cognitive, technical, and interpersonal skills. Indian government in collaboration with private sector elites started many institutions such as National Skill Development Corporations of India, Pradhan Mantri Kaushal Vikas Yojna, and many more with thousands of training centers all across states, helping millions of all age groups and genders; the process in itself provides employment to thousands. Fields like Manufacturing, Agriculture, Allied Services etc. are facilitated by the respective institutions to candidates depends upon their skills and background. Unfortunately in India skill development is not a luxury but has became a necessity considering unemployment, illiteracy, poverty, drug abuse, and crime
rate situations. The integrity of our education system is at question here! 80% of engineer graduates are unemployable, and youth unemployment rate is 12.90% which hikes frustration within and pushes them for opting detrimental means to earn, like indulging in cyber crimes, dealing in drugs etc. According to census data only 8.15% of Indians are graduate, which means 1 out of 10 Indian is a graduate, in Chandigarh & Delhi this proportion is little better 1 in every 5, but in Bihar & Assam it is 1 in every 20. There are 13 out of 100 Indians from the age group of 5-29 not attending school just because they do not consider education necessary; dropout rate from schools in rural area is 34.8% and 22.8% in urban areas. Through this report my attempt is to analyze the affectivity of ongoing skill development programs, and contribution towards productivity in our economy in terms of GDP, although they provide platform for millions, but is that enough? In spite of all initiatives there is large chunk of population seeking for livelihood opportunities. What steps should be taken in order to improve education system and employment scenario of our country?

**Keywords**: Cognitive Skills, Allied Services, Unemployable.

### 42. Extension of Skill Development for Women Empowerment through Institutions in the Mode of ODeL

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Technology plays a major role in the educational world and has been credited with reducing the educational gap between developed and developing nations through different modes of education. One of the different modes of education is distance education. Technical Boards, Universities and academic institutions have played an important role in bringing the change and still it is continued. Skill and knowledge are driving forces of economic growth and social development of the country. The importance of e-Learning, vocational education and skilled development among youth, opted especially. Higher Secondary Vocational Courses for better employment to sustain their livelihood is emphasized here. In addition to this, the various health issues, urban/rural, agricultural/non-agricultural, job opportunities and entrepreneurship, food industries, need base applicability is concerned with a slogan stated by Hon’ble Prime Minister has been prioritized in this study. Extension of skill development for women empowerment through institutions in the mode of ODeL is needed

**Keywords**: Women Empowerment, Skill Development, ODeL, Vocational Education.

### 43. Skilling the Human Resources for Food Processing Sector Using Blended Mode of Teaching Learning

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As food processing is a sun rising sector, demands for trained human resources for food industry are growing fast. The conventional educational institutions are producing a limited number of graduates and post graduates in this area, hence there is wide gap between the supply and the demand of trained persons. Considering the potential of the Open Distance and e-Learning (ODeL) system for strengthening the HRD in this area, IGNOU developed a PG Diploma Programme in Food Science and Technology (PGDFT) and offered through blended mode. The purpose of offering the programme through blended mode was to enhance the theoretical knowledge of the students through online course content and video lectures and to develop and upgrade the skills by conducting practical and hands-on industrial training. The programme was offered through this mode in two academic sessions. The present study was conducted to evaluate the efficiency of this programme in knowledge enhancement and skill development of the
students. The study was designed using mixed method of COL PREST A5 and data was collected from the registered students in this programme using a questionnaire developed by the researchers and validated by experts. The questionnaire is focused to assess the effectiveness of the blended mode for programme delivery in capacity building of the students through study of different components like quality of e-content, online lectures, online support services, delivery of the programme, evaluation, skills development and so on. The students were also asked to express their opinion about the strengths and weaknesses of this programme, reasons for dropping out and also to provide suggestions for improvement of this programme. Both qualitative and quantitative methods were used for data analysis.

The findings of the study revealed the effectiveness of the blended mode as well as the strength and weaknesses of this programme. These would help to improve the quality of the programme and suggest alternative strategies for capacity building in future.

Keywords: Skilling the Human resources, ODeL, Blended Learning.

44. The Role of ODeL for Skill Development of Rural Populations in Bangladesh: A Case Study of Kazipur Upazila, Sirajgonj

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Bangladesh is an area of 1,47,570 sq.km. with 1,38,703 sq. km. in rural and 8,876 sq. km. in urban area (BBS, 2011). Poverty, lack of education, absence of socio-economic facilities and poor infrastructural facilities are common features of rural area in Bangladesh. Moreover rural people do not have basic education as well as technical, vocational and other skill development training due to economic, non-economic and social barrier. In these regard, the main objective of this research is to determine the role of ODeL for skill development of rural population in Bangladesh. ODeL is a new strategy that is very promising and practical to meet the challenges of widening access to education, and thus increasing participation in vocational and higher education. ODeL can be an effective educational delivery model that is cost-effective without sacrificing quality. From the Bangladeshi perspective where resources are scarce and higher education provision is poor in remote area, ODeL is viewed as a viable, cost-effective means of expanding provision without costly investment in infrastructure. In terms of the economic scale and expanded Geographical reach, Bangladesh can explore this potential for quality educational expansion in rural and remote area as well as urban area without involving too much cost. This research is based on mainly primary data which has been collected by questionnaire survey. Secondary data has also been used from various sources such as books, journals, Student Support Services, Local Government and Engineering Department (LGED), Union Parishad and Inter Connected Network (Internet). Data was analyzed by SPSS 11.5 and Geographic Information System (GIS) and were presented by tables, maps and graphs. This research revealed that ODeL can play an important role for the skill development of rural populations in Bangladesh.

Keywords: Open and Distance e-Learning (ODeL), Rural Populations, Skill Development.

45. Tagore’s Innovation in Open and Distance Learning: Lok Shiksha Samsad

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Rabindranath Tagore’s Vishwa Bharati, established in 1901, is a well-known innovation in the education system. What is perhaps less known is his innovation in the open and distance learning (ODL) system. A few years into his establishing Vishwa Bharati, he realized the pressing need to take the education to the doorsteps of the unreached. He observed “Universities here are like a lighted railway compartment in a train passing through the countryside which is enveloped in darkness.” His goal was to empower those
people, who never had the opportunity to get a formal education, with the necessary knowledge and skills. In 1939, he was inspired by the ideas to establish the Lok Shiksha Samsad or the Peoples’ Education Council, which was the foundation of the first open ODL system in India and perhaps the world. He ensured that the students of this ‘non-formal’ system received all the educational facilities necessary for their knowledge and skill development through a network of the resources available at Vishwa Bharati and Sriniketan. This paper draws upon some of the original articles of Tagore to understand his philosophy behind this innovation. The paper further attempts to elucidate the innovative aspects of Lok Shiksha Samsad with reference to the parameters of innovation, such as novelty, meeting the specific need, feasibility, scalability and cost effectiveness. The findings of this paper are expected to throw light on the potential of Tagore’s innovation to introduce new ideas and practices into the present ODL system for skill development.

**Keywords:** Innovation, skill development, open and distance learning, Lok Shiksha Samsad, Tagore

46. **Reflection on the Practical Component of MAEDU Programme of IGNOU: A Case Study of Jammu**

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Education is a socio-economic platform which bridges the gap between the rich and the poor, caste and creed, region or religion. Higher education across the world enabled to respond challenges and opportunities which emanated on account of research and development in various fields of life, made several countries to realize the world over education as an index for human resource development. The open and distance learning system as one of the parameter in the promotion of higher education is a crucial vehicle in the sustained development of a knowledge society. Its potential for flexible education delivery, scope for self and lifelong learning and cost effectiveness make it instrumental in meeting the needs of individual and communities at this junction – in the rapid transition being made from the industrial to the information age. It has been described by the U.S. Department of Agriculture as “a process to create and provide access to learning when the source of information and the learners are separated by time and distance, or both”. Open and distance learning has a decisive role to play in meeting the demand for higher education and the creation of a global, knowledge-based, networked society. IGNOU as one of the major component of open and distance learning contribute to the global commitment to provide quality education for everyone worldwide. With the increasing acceptance of IGNOU as a major channel of widening access to higher education in India, it has become increasingly necessary that Quality Assurance (QA) process is developed and maintained if the ODL provision is to be relevant and recognized as complimentary to conventional higher education. So, this paper provides a reflection on the practical component of MAEDU Program of IGNOU with focus on the facts and figures on the students enrolled in the IGNOU’s MAEDU program since 2010 in Jammu who have completed/not completed their degree, critical review on the practical work of IGNOU’s MAEDU program using a semi structured interview, need to alternate some innovative field work in place of Dissertation work and some reformative measures in promoting quality education in open and distance learning system.

**Keywords:** Reflection, Practical Component, Case study.
47. Programme for Developing Skill through ODL

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The artefact of the Indian state policy of ‘Sabka Saath, Sabka Vikas’ forseight to seek advantage of demographic peculiarity of a locality, especially at the countryside. It is inferred that the policy endeavours to target youth groups of a locality and nurture their skill which is traditionally familiar to them. Alternately, ‘Skill India’ attempts to create opportunities, space, and scope for the development of set of skills known to a local youth group owing to their embeddedness and demographic peculiarity. The paper endeavours to suggest how youth groups at the Mithilanchal region of Bihar could be engaged by accessing, incorporating and supporting their existing albeit decaying skills through ODeL. Further, the paper would attempt to outline the necessity, prospective design and framework of a focussed diploma and degree programmes under ODeL scheme which could be dedicated to the local youth group at Mithilanchal under ‘Skill India’.

My study area at Madhubani district of Bihar, India, is worldwide acknowledged for its traditional folk art called Mithila painting or Madhubani painting and for small scale cultivation of high grade Makhana (Euryale Ferox). While Mithila painting has fetched Mithilanchal region its popularity on the world map, the artists remain very poor. In the same vein, the cultivation of Makhana plant (perennial and medically important cash crop gown in 96,000 hectares of water body surface) has been a traditional way of earning liquid cash to the poor local youths of Mithilanchal.

The study argues that there is a dearth of inducting a systematic course design and certificate/diploma programme in ODeL mode of learning for youth groups at Mithilanchal around Madhubani painting and Makhana cultivation respectively. This ODeL module based intervention could be an effective instrument of promoting ‘Skills India’ programme among Mithilanchal youth groups as it would generate huge pool of human resources based on locally embedded art and practices along with ensuring large scale employment amongst them.

Keywords: Sabka Saath, Sabka Vikas, Course Design, Human Resources.

48. Enhancing Livelihood Opportunities of Rural Communities by Inculcating Skills through Open Learning: Some Experiences

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Livelihoods of rural communities are facing stress in climate change scenario as their livelihoods are mainly dependent upon climate sensitive natural resources. Educational attainments of 369 rural households of a semi arid area of Rajasthan have been studied and it was found that people involved in agriculture and allied activities have not obtained skills which may be relevant for activities they perform for earning their livelihoods. Similarly studies have been carried out in semi arid areas of Bundelkhand region, Uttar Pradesh with an aim to find out the skill requirement of rural communities which can enhance their Livelihood opportunities. Through this paper, it has been explored as how the short term academic programmes offered in field of agriculture and allied areas by IGNOU through Open and distance learning with flexible admission eligibility criteria, can be relevant for rural farming communities by which skills can be inculcated with a scope of new horizons of entrepreneurship leading to sustainable livelihood. Besides, mechanism and initiatives which can be implemented to sensitize the rural communities about such relevant academic opportunities have also been discussed at length. The study indicates that skill inculcation can be on the adaptation for rural communities vulnerable to climate change, the views from the communities have been analyzed and suggestions have been given for policy implications.

Keywords : Livelihood, Climate Change, Skills, Open Learning, Short Term Programmes, Adaptation.
NGOs and Skill Development among the Rural Youth

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In Indian rural area, the major of the parents belong to agriculture occupational livelihood and illiterates, and they are not aware about the educational system in India. Most of the rural youth is facing the problems of medium in educational system (English/Hindi), lack of soft skill, technical skill, communicational skill and entrepreneurial training. The paper discusses about problems related to rural unemployed youth with the critical aspect of skill development training programmes related to rural youth.

According to NSSO the employment rate had gone down to 38.6% in 2001-2012 as compared to 39.2% in 2009-10. In the five year period of time the government has created millions of jobs, where as from the previous five 60 million new jobs were created. But still we have seen the unemployed youth in India. Even we have seen the statistics of India, the government have created millions of jobs to youth. What are the major issues involved? So many economists says that India is still a developing country, India has produced the most talented, intellectual human capital. But still we are listening word of unemployment in India and also rural unemployment. The major problem of rural youth is to be the skill required according to their needs.

Skill development is one of the essential ingredients for India’s growth story. Firstly, we need to redefine the relationship of education, employment and skill development. Secondly, as a very large population, India would never be able to upskill all of its youth across the country through the conventional education framework. The current capacity of the skill development programmes is 3.1 million. India has set a target of skilling 500 million people by 2022.

Government alone cannot accomplish this task. It calls for a concerted effort of government, private players and NGOs to address the issue in a comprehensive manner. India has gradually evolved as a knowledge-based economy due to the abundance of capable, flexible and qualified human capital. However, there is a need to further develop and empower the human capital to ensure the country’s global competitiveness. Despite the emphatic stress laid on education and training in this country, there is still a shortage of skilled manpower to address the mounting needs and demands of the economy.

NGOs’ linkage with poor maintains a field presence in remote locations. One of NGOs’ main concerns has been to identify the needs of the rural poor in sustainable agricultural development. They have therefore, pioneered a wide range of participatory methods for diagnosis and, in some contexts, have developed system approaches for testing new technology. NGOs’ rapport with locals has allowed them to draw on local knowledge systems in the design of technology options and to strengthen such systems by ensuring that the technologies developed are reintegrated into them. Undoubtedly, one of the main strengths of NGOs has been their work in group formation in response to perceived needs at several levels. Thus, Action for World Solidarity in India worked with grass-roots organizations to achieve simultaneous action in skill development programme.

Keywords: Rural Area, Employment Rate, Employment, Human Capital, Sustainable Agricultural Development.
50. The ODL System: Addressing Issues of Access and Avenues (Case Study of IGNOU Regional Centre, Deoghar)

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India has a population of 1.34 billion (2016), 25% of which is below the age of 25 and 65% below the age of 35. That is, we have a surplus of active population, a low dependency ratio and this is probably the right time to reap the benefits of demographic dividend.

More statistics say that the Gross Enrolment Ratio at the higher education level (18-23 age group) is low at around 19% and the unemployment rate keeps around 5-6% as per the latest figures.

Apparently, we immediately need to address two issues. One, ensure massification of higher education and two, to make education meaningful and productive by integrating skill training in mainstream higher education system so that we can create the required human capital for country’s development. The CABE and NKC have also laid emphasis on having more vocational courses and its integration as above. The National Policy on Skill Development 2009 also emphasized on creating a skills ecosystem in India.

The open and distance learning system is an apposite platform in the above scenario. It enhances access surmounting geographical, social and demographic boundaries thus aiming and increasing the GER targets. The advantage of access can be further strengthened in role play, by making the education more relevant and productive.

This paper intends to study the role played by IGNOU in creating access and avenues for the masses. The aim of outreach has been strengthened through its pan India network of contact centres in the first place. Secondly, the issue of skilling the active population has also largely been attempted by creating many new Schools of Study that have such skill targeted programmes to offer. Experimentation on the delivery mechanisms is also leading to desired changes to increase outreach.

The study will attempt to highlight such endaevours in skill training since University’s establishment. It will also analytically study the feedback of learners to be collected with the help of questionnaire on their perception about the relevance of programmes they have enrolled, their pre thoughts and post plans on getting themselves productively engaged, their concept on the utility of education received and their expectations from the University for making education and training more meaningful, through IGNOU. The field of the study is proposed to be the jurisdiction of IGNOU Regional Centre Deoghar (Jharkhand), subject to minor changes as per response from the sample population.

Keywords: Demographic Dividend, Massification of Higher Education, Skill Targeted Programmes.

51. Role of IGNOU Study Centres in Vocational and Skill Development of Youth in Kishtwar District of Jammu and Kashmir — An e-Learning Approach

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There must be conscious efforts on disbursement of knowledge and skills to all people regardless of their caste, religion, language and above all gender and location to make the development inclusive and participatory. And there can be a vital role of Open Distance and e-Learning in achieving this goal provided seriously implemented in the country as a whole. Distance Education Mode of learning and
Abstracts

training under guidance of IGNOU is significantly quenching the knowledge thirst of many marginalized groups namely women, handicapped etc. There are many vocational and technical courses initiated by the University for the vocational and skill development of an individual. But as the present study is aimed at to explore the role of various IGNOU Study Centres in rural areas of Jammu and Kashmir, the regional study centres are expected to contribute in the vocational and technical education through e-Learning also. Wherein, despite of any actual contribution towards the skill development, the distance education model should not further intensify the knowledge gap among the youth due to fastest changes in the sources of knowledge expansion in the present Global world. There are sixty regional centres in the Jammu province among which five belong exclusively to Kishtwar district. The centres need to be explored for their role in the non-formal education of the locality in general and skill development in particular.

Keywords: IGNOU, e-Learning, Skill development, Marginalized Groups, Kishtwar.

52. Enhancing Employment Skills through M-Learning

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One of the basic skills for providing employment in the society is the ability to learn. It is in this context M-Learning or mobile learning is a digital kind of learning through smart phones and other personal devices like notebook, tablets and iPods etc. With increasingly rapid changes in the work place, due to changing technology and as a result of changing societal needs in the context of globalization, citizens must learn that they can maintain their full participation in the employment in society. Therefore M-Learning is a vital tool for life-long learning to cater educational and training needs to provide environment of skill development and competencies for all citizens including persons with fewer opportunities throughout the whole lifespan and through different learning environments (formal, non-formal and informal).

Mobile learning using handheld computers is in its infancy in terms of both technologies and pedagogies. As a result there is still some dispute amongst industry advocates in how mobile learning should be defined: in terms of devices and technologies, in terms of the mobility of learners and the mobility of learning, and in terms of the learners’ experiences of learning with mobile devices. Most educators probably view mobile learning as the immediate descendant of e-Learning. For example e-Learning as learning supported by digital “electronic” tools and media, and by analogy mobile learning as e-Learning that use mobile devices and wireless transmission, or the intersection of mobile computing. Learning for work involves classic and formal educational activities, such as training courses, that prepare learners for future work-related tasks. A typical corporate application is the delivery of mobile compliance training, which can be seen as a viable means to reach geographically mobile employees, such as consultants or staff in logistics and transport systems. Another application is mobile simulation that prepare learners for future situations, for example SMS based simulation for disaster response training. Thus M-Learning allows widened opportunities for timing, location, accessibility and content of learning.

Keywords: Mobile Learning, Life-long Learning, Mobile Simulation.

53. M-Learning in Teacher Education in India

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Mobile device is one of the very important and essential component in the teacher education in the modern and techno savvy India. While the most of the existing research has focused on the value of M-Learning for students, but recently researchers started exploring the potential of mobile device in the
teacher education. The present study tried to explore the possibility of M-Learning as one of the most important and essential component in the teacher education. The findings of the study emerged as follows: (a) there is an increasing trend in integrating M-Learning in teacher education; (b) variations exist in perceptions, attitudes and usage patterns; (c) engagement with M-Learning and devices is primarily reported as beneficial; (d) challenges were scarcely reported; and (e) several pedagogical afforances support mobile learning integration into teacher education settings. These findings have been interpreted to determine their implications on the development of M-Learning in teacher education.

Keywords: Mobile Device, Teacher Education.

54. Skill Development Training and Vocational Education for Rural People through ODeL — Need of the Hour

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Sustainable development that meets the present needs without compromising the ability of future generations to meet their own needs. In rural India, people struggle to meet their basic needs. Their low income is hardly enough to cover daily supplies of food and shelter, let alone education. Childrens are needed to work in fields, which eventually mean that they drop out of school, usually after their primary education. With sectoral shift from agriculture to other sectors of the economy the workforce need to be imparted with skills so that they can seek employment in other sectors of the economy. By setting up new independent Vocational Education and Skill Development Training Institution at Block level, and for a cluster of villages within a block is required for improvement of traditional handicraft and village industries, which had a glorious past, where the main source of employment to the village craftsman, artisans and non-agriculture workers. The new Vocational Education and Training Institution will provide skill development for enhancing employability youth, especially those who have historically suffered due to their economic, social or cultural backgrounds and the physically and mentally retarded or differently-abled persons. Providing lifelong learning opportunities for sustainable development of nations is a paradigm shift from age-bound limited educational opportunities. The attempt to provide comprehensive basic education and training as preparation for working life has given way to the goal of making lifelong learning a preparation for targeted occupation preparation and ongoing continuing training. The flexibility of Vocational Education and Training system and modular approach will offer large number of customized modular courses to provide basic skills or upgrading of skills, for job transfer, training and retraining, to fulfill learning needs of the target groups through the ODeL system. All activities should be implemented by forming a special Task Force headed by the District Magistrate/Deputy Commissioner/Collector concerned. Proper beneficiaries selection process should be through a transparent, objective and fair process and Panchayati Raj Institution (PRIs) should be main functionaries with proper supervision of Institutional Strengthening Gram Panchayat Project (ISGPP) support.

Keywords: Self Employment, Vocational Education Training, Modular Courses.

55. Skill Development for Rural Populations — Role and Challenges in Distance Education Perspective

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India upholds major place in terms of economy and development in the world besides its second place for highest population. Education to the rural population in India is one of the major challenges and the developments in the ICT can minimize such challenges and the rapid developments in the open and distance learning system during the last four decades has emerged as vital mode of higher education to reach the unreached sections of the society. Many youth students pursuing higher education in India
lacking with skill sets and they require compulsory skill development programmes to combat the
unemployment problems. Teaching and learning strategies in open and distance education provides ample
number of opportunities since ICT enables flexible learning methodologies. The rural population in India
can be mobilized towards skill setup through various innovations of open and distance learning in order to
engage the largest human resources for the manpower requirement in various segments of the agriculture,
industrial and commercial sectors in future. The present paper analyses the importance of skill development
during the digital era and its promotion through distance learning to empower the rural population for their
economic development and sustainable future.

**Keywords:** Open and Distance Learning, ICT, Skill Development.

### 56. Geospatial Technology Education at IGNOU — Experiments and Innovation

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Considering demand for people having skills in geospatial technology, several government and private
sector institutes are offering educational programmes in the subject at different levels. Indira Gandhi
National Open University too is offering a six months Post Graduate Certificate programme in
Geoinformatics (PGCGI) through open and distance learning mode since July 2014. However, like any
other science and technology subject, imparting education in the field of geospatial technology in open
and distance mode is not devoid of challenges. Significant challenges were faced in different aspects
such as design of the programme, development of self-learning materials, selection of type of geospatial
data and software for practical course, programme delivery and evaluation.

This paper presents experience of the programme team in imparting geospatial technology education
through open and distance mode and shares the experiments carried out to overcome the challenges.
One of the important highlights of the programme is experimenting with information and communication
technologies as an important component of the programme right from need survey to curriculum design
to development of self-learning materials to its delivery and also publicity. Another important experiment
includes use of freely available geospatial data and selection of free and open source (FOSS) geospatial
software tools for design and development of practical manual and conducting practical exercises. The
experiments led to some innovations which in turn led to development and maintenance of the PGCGI
programme in time and cost effective manner.

**Keywords:** Geospatial Technology, Geospatial Education, Geoinformatics, Innovations.

### 57. Skilling Youth for Nation Building — Policy and Initiatives

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For any Nation, there is great importance and role of youth. Today, youth may change society and create
mega dimension environment in the country. Youth have the capability to bring about change, to make, to
create (C.M.C). In India, youth have played lead role since last 5-10 years ago. So, there is a need to
communicate with today’s young generation through proper training with proper practical assessment.
So, the question arises as to how to raise the skill level of the youth. The Government of India has
announced many plans, ideas and policies for building youth who want to do some thing for society. For
example, encouraging young people to setup Starts Up. But, the issue is how they have to be skilled. This
is specially important for tribal and remote area students who have not been successful. The Government
of India has introduced many job oriented and self study oriented courses under several central body organizations/institutes, state body organizations/institutes and through support to NGOs. The focus is on innovation where innovation means to make a change in your society, place, village or panchayats (Block) through skill development. A young person can start journey from a local level and play a lead role and set examples with inspirations for others. Skilling youth will lead to an Emerging New Skill India.

Keywords: Start ups, Innovations, Youth.

58. Role of ICT (Information Communication Technology in Skill Development

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India has one of the largest and youngest manpower in the world. However, compared to its population it is not significant and there is a tremendous scope of improvement in this area. Skill development is one of the essential ingredients for India’s future economic growth and development. The National Policy on ICT has set the goal of preparing youth to participate creatively in the establishment, sustenance and growth of a knowledge society leading to all round socio-economic development of the nation and to be geared for global competitiveness. ICT tools enable anytime, anywhere access to information and resources. Over the last decade or so, government of India has been promoting the use of the new information and communication technologies (ICTs) for skill development of common people. The role of ICT in skill development, its advantages and Govt. initiatives have been presented in this paper.

Keywords: Economic Growth and Development, Knowledge Society, Global Competitiveness.

59. Skill Development through Blended Learning

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Education may be defined as the process that leads to the acquisition of knowledge, skills, abilities and attitudes that are necessary for effective living in the society. The prevailing education system churns out students that are not immediately employable and skill up-gradation on the job is low; implying that a large section of the currently employed labor possesses outdated skills. It follows that education should prepare people with suitable employability skills for a sustainable livelihood. One of the methods that can be advocated for this is blended learning which is a combination of online discussions, e-Learning, face to face discussions etc. The present paper focuses on comparing face-to-face teaching with online teaching, consider the advantages and disadvantages of both forms of teaching/learning and a combination of both forms to enhance students’ employment opportunities.

Keywords: Employable, Employability Skills, Sustainable Livelihood.
60. Post Graduate Certificate in Geoinformatics at IGNOU — A Tool for Skill Enhancement for Women Empowerment

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Geospatial information empowers nation to understand its natural and human resources, and allows it to develop the requisite industrial policies to harness them. Embedded in everyday life geospatial technologies influence women’s identities and their interactions and activities at home and work together with enhancing skills and employability. According to the MHRD’s report of National Task Force in Geospatial Education, geospatial technology will be a crucial area for generating employment and self-employment opportunities for skilled manpower. Presently, geospatial education dissemination in India is through the existing university and education systems that provide the capacity-building and human resources. Keeping this in view Indira Gandhi National Open University launched Post Graduate Certificate in Geoinformatics (PGCGI) Programme from July 2014 admission cycle. PGCGI programme was designed and developed with the help of several eminent experts across India drawn from premier institutes and many private and government institutes/universities and industries. This 16 credit programme (with 25% practical component) offers opportunity to interested learners to learn basic concepts of remote sensing, GIS and GNSS, and develop practical skills to work on geospatial data. The fresh graduates and working professionals possessing desirous of developing skills in this field can pursue.

We have analysed data from six cycles of admission to find out the gender bias in overall enrolment in PGCGI Programme of School of Sciences at IGNOU. There exists a wide gender gap in the enrolled students as female comprised about 25% of the total enrollment. Of these female learners about 32% belong to 20-24 age group. About 60% of these were graduate (minimum eligibility) and 30% post graduate. 55% of the learners were unemployed whereas 45% were employed who were pursuing the Programme to enhance their skills and employability. Above 62% female learners who were married, matched with 67% above 24 years. 50% of the learners were found to have geography background while 25% were from science. This paper recognizes the issues of gender disparity in the field of geospatial technology education and explores the possibilities of educating females in geospatial technology for skill enhancement leading to their empowerment.

Keywords: Geospatial Education, Geoinformatics, Women empowerment, Skill Enhancement.

61. Towards Community Involvement in the Development of Heritage in Bangladesh: Role of ODeL in Skill Development

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Sustainable Development Goals (SDGs) have identified 17 goals towards ending poverty and hunger, ensuring inclusive and equitable education, gender equality, and decent work for all, amongst other developmental goals. At present needs of increased number of skilled person for the developing countries become a mandatory. Without inclusion of all learners with diversified needs, it would be impossible to reach the goal. Inclusive Education demands, all learners, regardless of their educational level, deserve quality education. As a teaching and learning delivery model there is no option of distance education to meet up the challenges of inclusion with technological strength. Some students are interested to continue their education through distance learning because of many reasons, such as poverty, geographical barriers, socio-cultural barriers etc. A term that is often used to describe the mode of delivery provided by many distance learning institutions is flexible learning, which, according to Moore (2000:56) is not a specific methodology. The Open and Distance e-Learning system with its inherent nature of flexibilities has the
potential to reach the unreached. It can provide an appropriate methodology to meet up the skilling needs of the unreached community through its academic, vocational, technical, professional, extension and lifelong learning programs. Only ODL system can support the people to be a skilled person with academic accreditation.

The paper examines various strategies for inclusive education within a distance learning framework, underscoring the crucial role of diversity with regard to cultures, beliefs and values among learners because of its different, flexible and innovative nature. This paper will be focusing on the needs of the minority groups in Paharpur, Naogaon (Bangladesh) those who are trying to revive the terracotta culture in an innovative way to meet up the need of the modern world. At the same time they need marketing knowledge and communicating skill to improve their livelihood. Through distance education they could receive basic education and marketing knowledge. The paper will be based on some case studies to identify the areas of knowledge they are expecting through ODeL.

**Keywords:** Sustainable Development Goals (SDGs), Inclusive Education, Distance Learning Framework

62. **A Study: Awareness of Distance Learners in Distance e-Learning Programmes in Tamil Nadu**

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Distance education has a history that spans almost two centuries (Spector, Merrill, Merrienboer & Driscoll, 2008) and this time period represents significant change in how learning occur and is communicated. From basic correspondence through postal service to the wide variety of tools available through the Internet, society has embraced new forms of communications through the years. Study examining the effectiveness of e-Learning in distance education has increased in recent years. This is primarily due to the possibilities increased for IT and learning as well as institutional attention to the learners. In India, the advent of the Internet and its online learning platform has opened the door to big changes in distance education in India. It became relatively easy to deliver high quality course content through the internet. Since its inception, students can get information about the university, programmes they offer and other information of functioning of Regional Centres and learner study centres, and/or from the official website. Once they get admission to the programmes, they want to pursue through online or respective learner study centres. Then they get the softcopy of self learning materials and other required documents. They can have online facilities to put their queries through e-mail and chatting. Therefore students at remote locations can get all the information in time. Internet allows easy communication among students and between students and the academic counsellors. In this study how the learners can use the e-Learning facilities and how best they are utilizing the services of e-Learning through distance learning mode.

**Keywords:** Communications, Online Learning, Self Learning Materials.

63. **Exploring the Role of Open and Distance Learning Systems to Support the Livelihood Patterns of Weaving Communities in Madhya Pradesh**

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With the growing technical advancements and industrialization in the textile sector the traditional livelihood of the weavers have got adversely affected in Madhya Pradesh. These weavers were known for the famous brands like waraseoni, maheshwar, chanderi etc. but the technological revolution in the textile sector bypassed them and their traditional products are not able to compete in the textile market.
This paper examines the factors which have threatened the livelihoods of the weavers and explores the role of ODL institutions to provide them alternative sources of livelihoods. The study will be based upon the feedback received from the households which have been traditionally dependent upon this profession. The data will be collected through questionnaires, interviews and qualitative exercises with the community members, local administration and the officials of handloom department in Madhya Pradesh. Besides the secondary data sources will also be used to evolve a model for the capacity building of these communities through Open and Distance Learning mode.

Keywords: Industrialization, Technological Revolution, Livelihoods.

64. Assessment of Learner Suitability Trend of ODL System — An Empirical Study

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Right education should help the student, not only to develop his capacities, but to understand his own highest interest. — Jiddu.Krishna Murthy

Open and distance education system is a modern system of non-formal education. Open and distance education system provides autonomy to learn at will, choose the subjects of one’s choice, economically viable mode, appear examinations without the stress and in a flexible environment. The success of distance education system is based on a three way affiliation between the Schools, Regional Centers and Study Centers in the University. At the same time, the success of distance education learning is based on a three way affiliation between the student, academic counsellors and technology.

The quality and nature of education often varies with the living conditions of the people. Highly populated, backward area people need job oriented programmes/vocational programmes rather than higher education programmes. Hence, there may not be any positive relation between the total population and enrolment for higher education. The cost of living and medium of education in mother tongue plays a vital role in creation of higher education opportunities under regular/distance education mode at rural and backward areas. Generally, the enrolments for higher education in developed/urban areas are higher than the enrolments in backward/rural areas.

At present, in Karnataka State, Karnataka State Open University is disaffiliated by UGC, where all the programmes are offered in regional language. Due to ‘Territorial Jurisdiction Notification’ of UGC, other neighbor state open universities are not offering higher education in Karnataka State. Presently IGNOU is the only one government university offering open and distance education in this region. Hence, a survey is conducted among 100 graduates of backward districts namely, Bijapur, Bagalkot of North Karnataka State.

The present study is an attempt to assess the learner expectations on distance education. The learner views on open and distance education degrees validity, preference to study, programmes needed under ODL, ODL learning skills etc., are collected and compiled in the research paper. This study analyses the role of open and distance education is providing the benefits of education to the backward and deprived sections of the society.

The UGC has initiated Massive Online Open Courses (MOOC) platform under Swayam. The Swayam offers a virtual classroom to students with structured lectures by subject experts. In this context, an attempt is made to assess the learner suitability trend of ODL system.

Keywords: Autonomy, Learner Expectations, Massive Online Open Courses.
65. Learner Support Services in Open and Distance Education: A Study of Satisfaction Level of Students of IGNOU, MANUU& MPBOU

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Open and distance education has expanded the educational opportunities for millions of people who have either missed out an opportunity of receiving education through formal system or lost an opportunity of completing education through formal system because of the personal, social or economic reasons. Also there are large number of people who are employed in various sectors and they require lifelong upgradation of their knowledge and skills for learning, open and distance education provides an opportunity to them too. Thus, one can say that open and distance education is contributing immensely for development of human resources in the country. Now, it has been widely accepted that it is much bigger system of development of human resource than the formal system with definitely cost effectiveness and high efficiency. But, the success of open and distance education lies on the quality of learner support services offered to the learners which is indicated by satisfaction level of the students enrolled in open and distance education. India has one of the biggest system of open and distance learning with almost 13 State open Universities and one central National University. Apart from it, almost every State university and Central university has Directorate of Distance Education. IGNOU, a National Open University established especially in 1985, offers all its courses and programmes through its regional and study centres. Similarly, MANUU a Central University especially established for promoting Urdu language offers its courses through regular as well as distance mode. It has Directorate of Distance Education and networks of regional and study centres across India. MPBOU, a State Open University also offers courses and programmes throughout State via regional and study centres. Present research will investigate what are the various learner support services offered by respective university at their study centres. Researcher also investigates the level of satisfaction of students in regard to the support services each of the universities are offering in their study centres. The research will be confined to the two study centres each of the three universities present in Bhopal city.

Keywords: Educational Opportunities, Human Resources, Learner Support Services.

66. Open and Distance e-Learning in India: An Agenda for Inclusive Higher Education

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One of the key extension activities within the higher education sector in India is bridging an ever-widening gap between society and (its access to) higher education. Since independence, the country has seen an unprecedented explosion in the conventional higher education system. However, as witnessed in the last few decades, such an explosion could not impact many learners regarding providing universal access. In other words, an explosion in the conventional system or mode of education and institutions has not reached to ‘all’.

One way to ensure equal access (to ‘all’) was to introduce distance/open/correspondence education system (Open Distance e-Learning – ODeL) in the country as envisioned since the 1960s. The ODeL system envisaged an egalitarian open to all irrespective of any barriers of caste, gender, and economy. ODeL adheres to the philosophy of “openness” and uses the “distance mode” of learning. It is “open” in the sense that it removes whatever constraints exist in accessing the conventional education system (Evans et. al, 2008). Hence, the ODeL system (in principle) established an era of democratization of education in the country, particularly at the tertiary level. To this end, it is important to critically analyse the status and relevance of ODeL in overcoming socio-economic inequities in higher education. Such an
analysis on the role (and prospects) of ODeL in addressing the aspect of inclusion or egalitarianism is crucial to be discussed among researchers and policy-makers.

The paper proposes to discuss the role and relevance of ODeL in India, and its agenda towards bridging wide socio-economic inequities in higher education (universally). To raise critical perspectives about such a relationship — the paper provides an explanation of evidence from policy documents along with other secondary resources. Further, to substantiate the above, the paper provides experiential insights from select open-ended interviews with students enrolled in ODL courses hitherto.

**Keywords:** Higher Education; Distance Mode, Conventional Education System and Egalitarianism.

**67. Empowering Women through Distance Education — A Study with Special Reference to KKHSOU**

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Women Empowerment has been an issue of discussion and debate for a long time now. It has been aptly said that education holds the key for opening the doors of opportunity for women. Open and Distance learning has emerged as a powerful instrument in empowering women all over the world. Indian National Policy on Education (1986) has emphasized that education is the only instrument through which equality of status and opportunity between men and women can be achieved. The policy further emphasized that it can be achieved only through open and distance learning where there is no bar for time, place and pace.

This paper is also an attempt to reflect on the development of the status of women empowerment by availing courses through Krishna Kanta Handiqui State Open University in Assam. This university has tried to raise the status of literacy of women in Assam and also helped in the development of women physically, mentally, socially and economically. KKHSOU has been the pioneer in raising awareness about distance learning in the state.

**Keywords:** Distance Education, Women Empowerment, Courses for women in KKHSOU.

**68. Future and Changing Roles of Staff in Distance Education: A Study to Identify Training and Continuous Professional Development (CPD) Needs**

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Changes in higher education through changes in government funding, competition amongst institutions, the increased use of technology and a shift to learner-centred education are leading to changes in the roles of distance education academics. Clarity of roles and development of appropriate competency frameworks are essential for optimal performance of distance educators. Studies indicate that appropriate learning and development programmes, underpinned by relevant competency development, are required in universities. In-service (CPD) programs should offer convincing, no-nonsense and on-going training that deals with how to teach at a distance, not merely how to manipulate new instructional technology. This study investigates the current and future changing roles of distance educators at the University of South Africa (Unisa) as well as staff perceptions of the importance of each of these roles and training needs in order to address competencies required in these future roles. It forms part of a larger project which will focus on capacity and continuous professional development (CPD) processes that are necessary to train staff to be prepared for the changing roles. A mixed methodology was employed. Firstly a web-
based survey was sent to a stratified random sample of Unisa academic staff to reflect generational
cohorts, colleges, educational levels, length of service at Unisa, gender and various other demographic
variables. This was followed by semi-structured interviews conducted with a purposive sample of 15
academic staff representatives of the same demographics described above. Key results indicate that
competencies in the roles of technology, instructional design and student support have emerged as crucial for
distance educators.

**Keywords:** Competency Frameworks, Continuous Professional Development, Distance Educators; Roles.

### 69. The Demographic Dividend: Its Economic Implications in Young India’s Growth

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In this era of development and transition phase the growing economies of the countries come across
demographic change, known as “Demographic dividend”. India is the youngest nation in the world with
64% or more population in the “Working Age Group”. Demographic change in India is opening up new
economic opportunities. Demographic dividend is essentially due to two factors – declining birth rate
and improvement in life expectancy. The census data of 2011 shows that India’s youth bulge is now
sharpest at the key 15-24 age group, even as its youngest and oldest age groups begin to narrow. If Indian
manpower is properly utilised, it can add significant 2% growth to the GDP annually. The pertinent
question is whether India will be able to reap the benefit of demographic dividend through increasing its
employability and quality of labour force. Indian Government has set an ambitious target of developing
500 million skilled youth by 2022. However, absorption of the Indian youth into the labour force is not
as high as one would expect, perhaps due to poor employability which is affected by a deficit in educational
attainment and health. Further, education with skill development can lead to satisfactory employment
for young people only if educators have a strong interface with industry. The dreams of huge income
flow and resultant economic growth due to demographic dividend could be realised only when we
inculcate the required skills in the work force. Policy choices can potentiate India’s realization of economic
benefits stemming from demographic changes. It appears that a socio-economic crisis is looming large
and demographic soundness will turn to threat unless intervened immediately. In this backdrop, this
paper will discuss about the conceptual understanding of demographic windows of opportunities and
will show how demographic dividend can leverage the economic development of a country like ours. It
will also show that the age structure is not homogeneous throughout the Indian states. This study is
mainly based on secondary data and will be of descriptive and conceptual in nature.

**Keywords:** Demographic dividend and transition, working force, skill development, economic growth

### 70. Geoscience Education in IGNOU and its Implications on Geoethics and Sustainable Development

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Ruthless exploitation of natural resources and population pressure has severely impacted nature’s ability
to sustain life. Man is dependent on earth’s resources for his existence, development and livelihood. So,
the knowledge of geoscience is essential to understand the crucial global pressures in the century, i.e.
declining water level resources, fossil fuels and mineral resources, breakdown of ecosystems, and global
warming as well as environmental degradation. Geoscientists can play an important role in addressing
these global challenges and disseminating knowledge and awareness in the society. Unlike western world our youth are less aware of implications of depleting and dwindling natural resources. Thus, it is a challenge for the educators to develop geoscience education programmes with a strong component and perspective on sustainable development.

The paper discusses the possible impact of geoscience education at IGNOU in developing graduates with an understanding and inclination on geoethics and sustainable development. Presently, in distance mode a wide range of programmes are being offered in subjects like physics, chemistry, mathematics, biology except geology. Mega universities like IGNOU are at an advantageous position for offering geoscience education owing to its wide reach and flexibility to cater to millions of learners. Keeping this in view School of Sciences at IGNOU is in the process of developing bachelor’s degree programme in Geology after carrying out an extensive need survey. The curriculum for bachelor degree programme, which includes the courses on physical and structural geology, petrology, mineralogy, environmental geology, hydrology, ore geology, remote sensing and GIS has been designed and developed with help of several eminent experts across India. The courses are expected to enhance understanding of the necessity to conserve our soil, mineral, water, fossil fuels and appreciate the concepts of geoethics and sustainable development.

**Keywords:** Geoscience Education, Geology, Sustainable development.

### 71. The Imperative of Building Self-Learning Skills from School Years for Effective Learnability to Acquire Skills and Knowledge under ODeL

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One major problem distance education learners face is lack of cognitive skills to study as an autonomous, self-motivated, independent learner through self-instructional learning materials. The lack of linguistic competence, especially in the English language is a major barrier in effective self-learning. Many learners manage to comprehend the instructional material but fail to reproduce in their own words due to poor language skills. This paper explores the core issue of lack of study skills in the English language and proposes solutions. As all learning is self-learning this paper strongly recommends self-learning skill development from school years. Given the written exam focused nature of our school education system; school students focus on expected questions and expected answers. This impedes the development of deeper cognitive and self-study skills. Learners just memorise and reproduce in written form the information distributed in the school in the name of teaching. Knowledge acquisition does not happen. There is a need to adopt constructivism as pedagogy. The development of self-learning skill during school years will strengthen the distance learner’s ability to become an effective self learner to acquire skills and knowledge on his own. To this end, the school curriculum needs to be changed and mugging up ready to write answers (cut and paste) should be discouraged. Most of the distance education students opt for selective exam-focused study keeping in view the past question papers and this approach is rooted in their usual study method that comes from their school years. Many distance learners even search for ready-made answers for the term-end exam and ask for external help to complete the project work. The damage of school and junior college years cannot be undone when they take up an ODeL program. The path to effective self-learning in adult life goes through school education which needs to be made self-learning oriented. Urgent mindset change is required to realize that distance education goes beyond mere memorizing and writing expected answers. ODeL learners need to be equipped with a foundational ‘self learning competency development program’ to build their linguistic-cognitive skills and academic skills to strengthen self-learnability for acquisition of skills and knowledge. Most of our learners remain academically and professionally underperformers due to lack of vital self-learnability.

**Keywords:** Self-instructional Learning Materials, Constructivism, Self-learning.
72. ODeL Led Skill Development — A New Perspective for Sustainable Rural Growth

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Skill and knowledge are the driving force of growth and development. Now-a-days, skill development in rural setup has become more demanding and challenging in the wake of modern technology becoming pervasive. There is a growing concern about the shortage of skilled human resource in the rural sector. Innovative and creative solutions at all levels are required to be worked out to meet the challenge of producing high quality human resource.

Skill training refers to acquiring of practical skills to carry out a job/task efficiently by hand or with human intervention using equipment, tools or technology. The skill development system involves formulating structured technical and vocational education and training programmes and efficient delivery mechanism. Traditional systems of training have proven to be inadequate to address the massive need.

To meet the challenge, need based short duration modular vocational programmes, such as low cost storage methods for agricultural and other plant produce, organic farming, aquaculture, mushroom cultivation, sericulture etc. should be planned. In addition, practical training programmes, full day/half day or weekend may be worked out as per convenience of learners and availability of training infrastructure etc. The delivery of the programme should be flexible enough to suit the requirements of the target group. Teaching practical skills require use of very precise instructions to enable learners to follow the process and to rehearse the skill.

Print based materials are valuable tools in providing instructions by way of illustrations of step by step procedures. Other modes that are becoming more popular are video, interactive multimedia, online resources on internet etc. Massive Open Online Courses (MOOCs) are becoming popular among distant learners. These online platforms also offer features like discussion forums that enrich the learning experience.

ODL can offer the best of both worlds – combining the benefits of printed material and e-Learning to present ODeL based training modules for its learners. ODL institutes can participate in vocational education and training programmes through collaboration with industries and institutions like AICTE. A reliable evidence of capacity to perform a practical skill can be gathered and certificates of Diploma or Degree be awarded. In view of the inherent potential of ODeL to reach the masses, the said measures will be more effective when combined with ODeL.

Keywords: Skilled Human Resource, Modular Vocational Programmes, Training Infrastructure.

73. Vermitechnology: A Tool for Rural Sector

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Rural people are the most disadvantaged group in terms of access to services including education and training. Education, entrepreneurship, physical and social infrastructure all play an important role in developing rural regions. For development, employment and livelihood opportunities skills are essential. Rural skill development is a necessary priority for raising standard of living.

For skill development and employment opportunities, infrastructure and resources available at local level are of prime importance. Agriculture, which provides employment to majority of rural population and in order to raise productivity, chemical fertilizers is being used extensively. These have harmful impact on
the soil as well as the product. With increasing awareness, more and more farmers are moving towards organic farming. For organic farming, organic waste generated locally can be used.

Organic waste is produced wherever there is a human habitation. The main forms of organic waste are household food waste, agricultural waste, human and animal waste. It can be easily recycled by the activity of the earthworm to produce a manageable biofertiliser. Microbial composting of organic waste through earthworm activity is called vermicomposting. Product of vermicompost is organic fertilizer which is a good substitute for chemical fertilizer. Earthworms act in the soil as reactors, grinders, crushers and chemical degraders. Culture of earthworm is known as Vermiculture, which has multiple objectives like waste management, enhancement of soil fertility, soil detoxification, enhanced microbial activity, bioaccumulation and promotion of organic farming and sustainable agriculture. Vermitechnology is a suitable tool for organic waste decomposition.

Use of vermitechnology at rural sector seeks to provide individuals with the necessary skills and support to achieve self-sufficiency at local level. Marketing of vermicompost provide additional support to the local people for generating revenue. Identification of area, design, systematic planning and delivery is required to build up a vermicompost unit. It is a very cost effective technology and affordable for all. No formal education is required for kitchen vermitechnology, which can be an asset for rural women to earn their livelihoods. Training on ecofriendly vermitechnology would give better opportunities to establish commercial small scale units in rural sector through ODL mode.

Keywords: Livelihood Opportunities, Organic Farming, Self-sufficiency.

74. Enhancing Skills through ODL: Policy Recommendations from Employers

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This paper aims to seek recommendations in the ODL policy from the industry to ensure learners graduating from ODL system are employable and are at par with those who have graduated from conventional system. Survey from total 97 employers spread over 7 industry sectors indicates that policy intervention is required in order to overcome major challenges of ODL institutions and its learners. These recommendations stressed on the quality of ODL education and skill development through collaboration between academia and industry and use of technology.

It is highly advocated that government agencies should ensure that quality parameters like recognition, accreditation, industry relevant curricula, be implemented and fulfilled by ODL institutions. Apart from the core subject knowledge, employers also stressed upon the need to foster employability skills such as problem solving, critical thinking, use of technology etc. to be an imperative component of the curriculum. Both the quality of ODL programmes and its linking with skill development will enable ODL system to bridge the gap between demand and supply of skilled manpower. Employers were also positive about the use of online learning/MOOCs/OERs etc. for imparting skills.

The herculean task of skilling millions of people in India can be achieved through collaboration and use of technology. Collaboration is the key factor to bring about synergy between academia and industry. It will enable the learners’ job ready and give productive output at their work places, there by contributing to the economic development of the country. Alliance will also provide learners a smooth transition from learning to earning.

Keywords: Skill Development, Industry, Employment.
75. Skilling, Reskilling and Upskilling the Youth through MOOCs: Choices and Challenges

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Over the years, open and distance learning has catered to the needs of millions of learners across the world. In spite this outreach, there are still many pockets in India which have remained away from the ambit of ODL system because of its heavy dependence on the physical infrastructure of the parent or host institutions and hence demand alternative positive modes of intervention for providing avenues for higher education as well as facilitating skill-development. More than 700 million Indians are expected to enter the working age group by 2022. As per the India Skills report, India has to achieve the target of skilling/upskilling 150 million people by 2022 to enhance productivity, employability and sustained development. Besides, it has been reported by the recruiting agencies time and again that our youth lack in the skills to match their qualifications to meet the market needs. Massive Open Online Courses (MOOCs) have gained popularity in the recent years in the educational spheres because of the gamut of opportunities they offer to people for widening their knowledge and skills. Because of its flexibility, extendibility and innovativeness, ODeL, through MOOCs, can play a pivotal role in bridging the skill gap which the youth of the country urgently needs to make the dream of Skilled India a truth. Reputed ODL institutions like IGNOU can play a major role in this regard to reach out to the millions of the disadvantaged people looking for opportunities for educational empowerment and on the job skill development. In a country like ours, where the internet penetration and bandwidth are very low and around 70% of people live in the rural areas, conceiving MOOCs for imparting both hard skills and soft skills can be very challenging. However, seen from a positive perspective such initiatives can be very much successful with proper planning and execution. Through a blended mode of learning, the online components of a MOOC can be integrated with the practical face to face components, simulated videos and video tutorials, reflections on learning in the shape of discussion forums to make the acquisition of skills full-fledged. In the present paper, an attempt will be made to share our experiences in the design and development of two MOOCs, one for hard skills (unique Sand Art of Padmashree Sudarsan Patnaik, the internationally renowned sand artist) and the other for Soft Skills. The choices available in transacting the courses and the challenges encountered in this regard shall be discussed with relevant examples to corroborate the findings.

Keywords: Flexibility, innovativeness, Blended Learning, Hard Skills, Soft Skills.

76. Application Oriented Courses (AOC) as an Aid to Skill Development—Challenges in Rendering Support Services for AOC

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The democratic sub-continent India, with the recent amendment of the constitution provisions related to the right to education (Part III of the Fundamental Rights; Article/Schedule 21A; inserted by the 86th Amendment in December, 2002 and passed by the Parliament in July, 2009; came into force from 1st April, 2010) has established the citizen’s right to education. The Federal structure of the Indian Republic has constitutional provisions for education including inclusive education. On the other hand, India provides loans to establish various sectors of self-employment while at the same time, has been the venue for establishment of Corporate by the various benefits given for establishing companies by foreign/Non-Resident nationals. However, Government employment is also an avenue for employment for resident nationals. Almost all employment is on the basis of the academic credentials earned and the performance in the entrance examination, personal interview by the candidate under selection. Education involving learning as a process happens in institutions which can either be a sole existence (any Institution of the
Conventional Education System (CES) or the Distance Education System (DES) or be a part of the Industry (as in Corporate Universities) or be a part of the income generating hobby (as in Home Tuitions) or be a part of the leisure time activity in home (as in teaching-learning process in a family at a home set-up) or be a part of the leisure time activity in a place away from home as in a hostel (as in teaching-learning process among friends/peers/inmates in a hostel set-up) or be a part of the activity beyond job profile in an Office among colleagues, across the designations (as in teaching-learning process in an office set-up) or be a part of the personal activity in a personal sphere as exists in mentor-mentee relationship or be a part of the self-learning process (within an individual). With different players in providing education, it necessitates the usage of common terminology in the syllabi for each of the educational qualification the component which is intended to harness the skill aspect in the individual. Of late, the Choice Based Credit System (CBCS) launched on the National Education Day on 11th November 2014 by the Ministry of Human Resource Development (MHRD), have the Skill Development Programmes specified as one among the components of subjects/courses in the CBCS. Skill Development Programmes are prevailing under the head of Application Oriented Courses (AOC) in certain Distance Teaching Institutions like the Indira Gandhi National Open University, Institute of Distance education of University of Madras, This paper enumerates the array of Application Oriented Courses (AOC) available for offer at Indira Gandhi National Open University and the preferred AOC as evident by the choice of the learners. This paper also details the support services available for the AOC and the challenges while rendering support services to AOC.

Keywords: Academic Credentials, Choice Based Credit System (CBCS), Support Services.

77. Undergraduate Students of Conventional Colleges — In Need of ODeL Support for Skill Enhancement and Preparation for Various Examinations

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As a general trend, undergraduate level degree programmes in Indian colleges and universities enroll mainly two categories of students, after their 10+2. Those that enter into various streams of Humanities and Social Sciences, some having a clear idea of what career they would like to pursue while others who are clueless in this regard, and if given a chance would like to explore options to equip themselves with creative and job oriented skills. Giving in to the temptation of job security offered by government jobs, many students strive hard to get through competitive exams of varying levels. Needless to say coaching institutions for this preparation are found in abundance in every nook and corner of the country.

Then, there are those who enter the college to pursue Science and Math streams. Here, a large majority of the students comprise the ‘spill over’ of Medical and Engineering aspirants who couldn’t succeed in cracking the entrance examinations and thus go on to prepare for their second attempt towards the entrance examination. Many of these, who could afford to, do enroll themselves yet again in a coaching centre for continued guidance.

One common, urgent and essential need for both the categories of undergraduate students is the opportunity to receive coaching for various examinations and provision of skill based training at minimal or no cost basis in lieu of private institutions charging an exorbitant amount of fees for the same and yet there is no assurance of quality.

This paper presents the perspective of undergraduate level students; their needs be addressed through a requisite variety of programmes through ODeL methodology particularly using mass media (radio and television) and online delivery as they could take advantage of the inbuilt flexibility of the system without interrupting their college studies. The MHRD initiatives of democratizing quality education through Swyam
(MOOCs) and Swyam Prabha (DTH TV Channels) could be optimally used for this purpose. The coaching and training programmes be designed keeping in view the academic calendar of conventional colleges and providing sufficient scope for student participation in asynchronous mode. Besides, a variety of media when used for this purpose would give equity access to urban and rural student population.

**Keywords:** Job Oriented Skills, Online Delivery, Academic Calendar.

78. **Geomicrobiology Programmes through Open Distance e-Learning: Potential for Employment**

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Geomicrobiology deals with the study of role of microorganisms in specific geological processes. Geomicrobiology programmes are interdisciplinary academic fields that study about biogeochemical interactions; microbe-mineral interactions and pathways with potential applications in the fields of waste cleaning and degradation; bioleaching; metal mobility; understanding climate change; monument restoration; energy security; cave studies and extraterrestrial life. The aim of geomicrobiology programmes will be to develop specialized skills related to improve the employability in industry, scientific and educational institutions. Blended approaches in programme development will help to achieve a more specialized skilled scientific manpower through community education and learning. This can be achieved by relying on latest Information and Communication Technologies (ICTs) available through Open Distance e-Learning (ODeL). The main objective of the present study was to understand the need for introducing geomicrobiology programmes through ODeL for developing specialized employable skills. The study was undertaken using a structured questionnaire developed by the researchers and validated by experts. The questionnaire was administered on the randomly selected sample of 100 scientists, researchers, teachers, and learners. An interview was conducted using semi-structured questionnaire to obtain in-depth information from the participants which was not possible to obtain through questionnaire. Both quantitative and qualitative methods were used for data analysis. About 72% of the respondents felt the need for advanced skilled diploma programmes in geomicrobiology and 68% expressed computer aided web counselling and virtual links as the most preferred mode for the type of ICT to be used. The results support the blended approach for capacity building in the field of geomicrobiology. It is concluded that careers in geomicrobiology can be rewarding and range from manpower demand in the field of medicine to biotechnology industries, teaching/research positions in academic Institutions.

**Keywords:** ODeL Programmes, Needs Assessment, ICT, Open Distance e-Learning, Employability Skills.

79. **Reaping the Demographic Dividend through Open and Distance e-Learning System (ODeL)**

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India’s population of 1.21 billion (2011) is second next to China with every sixth person in the world being an Indian. The population is expected to hit 1.37 billion by 2020 and 1.48 billion in 2030. At that point, India’s population will overtake China’s. Despite a burgeoning population the silver lining is that India is inevitably set to reap “demographic dividend” i.e. higher working population and lower population in the dependency ratio somewhat similar to China. (China in just 15 years, between 1995 and 2010,leveraged its “demographic dividend” to build the world’s second-largest economy after the U.S.). But in India’s case this dividend can be realised provided the population acknowledged to be the youngest in the world.
(average age 29 years compared to 37 years for China) is considered as an asset/human capital with more emphasis on human resource development. Education in general and Higher Education in specific is a crucial means to attain Demographic Dividend as seen in China. With a paradigm shift in Higher Education policy and how education is provided to the classes and masses all over India, the concept of Open and Distance education with emphasis on ODeL can help in giving access and bringing equity among people of India by bridging the gap between Urban India and Rural Bharat. The present study through use of primary and secondary data survey in Pune District is an attempt to understand how education especially ODeL can help in reaping the Demographic Dividend and making India truly an educational hub and educational superpower.

**Keywords:** Demographic dividend, ODeL, leveraged, distance education, Hub.

**80. A Study on Usefulness of Learner Support Services for Completion of a Distance Education Programme**

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The distance education institutions provide learner support services (LSS) starting from admission process to final award to certificate/degree to learners. The LSS help the learners in completion of programme of study by providing them administrative and study related problem solving supports. This study is an attempt to identify the contribution of different components of support services in the completion of a distance education programme. The specific objectives of the paper include the analysis of level of usefulness of the learner support services provided under the distance education programme, and identify the components of LSS contributing for completion of distance education programme.

The data for study were collected from the learners of the PG Diploma in Food Safety and Quality Management (PGDFSQM), a programme offered by the Indira Gandhi National Open University (IGNOU), New Delhi. An online survey using the Qualtrics survey tool was conducted to collect the data for the study. The link of the questionnaire was sent on email of 550 learners. The completion status of the learners in the programme, extent of LSSs use, usefulness of LSSs, effectiveness of LSSs, socio-economic profiles of learners, etc. were the main aspects in data collection for preparation of this paper. The data will be analysed, using a suitable regression technique, to identify the components of LSS which contribute in successful completion of the programme. The paper will identify the significant components of the learner support services on which the University may focus to strengthen the learners support services in distance education programmes.

**Keywords :** Support Services, Level of Usefulness, PGDFSQM.

**81. Empowerment Initiatives for Marginalized Groups Special Reference to Western and Southern Rajasthan by IGNOU Regional Centre, Jodhpur**

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Indira Gandhi National Open University, Regional Centre, Jodhpur, Human Resource Development Ministry, Government of India and Labour Employment and Skill Development Department, Government of Rajasthan organized a Career Skills Job Fair 2016 in Udaipur. Indira Gandhi National Open University Regional Centre Jodhpur is responsible for coordination of all skill development efforts in 13 Districts of Rajasthan with the aim of removal of disconnect between demand and supply of skilled human resource, building
the vocational and technical training frame work, skill up gradation, building of new skills, and innovative thinking not only for existing jobs but also jobs that are to be created. IGNOU Regional Centre, Jodhpur and Labour, Employment and Skill Development Department of Rajasthan has to ensure that the skilling needs of the disadvantaged and marginalized groups like SCs, STs, OBCs, Minorities, women are addressed. IGNOU, Regional Centre Jodhpur’s main motto is to work towards reducing unemployment and generating employment for youth in the western and southern Rajasthan. In this connection, Regional Centre Jodhpur organized a Mega Job Fair in 2016 for disadvantages group of society in tribal areas of 6 Districts of Rajasthan. These districts were Udaipur, Dungarpur, Banswara, Rajasmand, Pratapgarh, Sirohi. This Mega Job Fair aimed to develop awareness among tribal youth and engage in tribal area development. Inaugural of the book “Disha” for career skills development was done. In this Job Fair, fifteen hundred persons participated, out of which seventy persons were selected for private jobs and eight hundred persons selected for skill development training.

The National Skill Development Mission was approved by the union cabinet on 1-7-2015 and officially launched by the Hon’ble Prime Minister on 15-7-2015 on the occasion of World Youth Skills day. The Mission has been developed to create convergence across sectors and states in terms of skills training activities. Seven sub-missions have been proposed initially to act as building blocks for achieving overall objectives of the mission. They are related to institutional training, infrastructure, convergence, trainers, overseas employment, sustainable livelihoods leveraging public infrastructure. This paper examines the initiatives taken by IGNOU Regional Centre, Jodhpur towards meeting skilling needs of tribal in the western Rajasthan.

Keywords:

82. Building Capacities of Workforce in Outsourcing Industry through Open and Distance e-Learning

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Human Capacity Building is the development and strengthening of skills and capabilities to survive as competent work professionals in an organization. To remain competitive in their own sector organizations always needs highly competent staff. Many organizations realizing the importance of capacity building of human resource launch their own customized web-based trainings and e-Learning programmes. Organizations with such e-Learning programmes have courses customized to suit the specific needs of the organization which may not give much value addition to the employee in the outside world. In the current context, ODeL provides a million dollar opportunity to working professionals to upgrade their skills and build their capacities. Open and Distance Learning has become a vital means for self growth in the professional world. With the developments going in the field of distance learning introducing the concept of E-Learning and M-Learning, professionals are able to enroll in different industry demanding programmes making themselves more saleable in the market. This paper uses secondary research to understand the outsourcing industry which has been a source of employment for various young professionals in the current scenario. These outsourcing industries provide numerous services to their on-shore and off-shore clients. At a global level, India maintains a leadership position in the outsourcing industry with a share of 37% in the global outsourcing market. As per the NASSCOM study, more than 500 companies in India are offering Business Processing Outsourcing services.

Operation domain of these outsourcing industries can be divided into four levels of hierarchy based on their expertise. The bottom level staff is responsible for performing the core job which requires the technical expertise of that domain. For instance, an organization providing legal services in contract formation will have lawyers as working professionals at the bottom level. One level up in the hierarchy, are the professionals who are primarily involved in team management. Interestingly, that personnel will
prove to be a good team manager who has both technical (domain) knowledge and managerial skills as well. This is where Open and Distance Learning helps the working professional in building up their skills and scaling to a next level. The paper attempts to establish versatile role of open distance e-Learning in professional world specific to outsourcing industry. At a practical level, when a bottom level staff is promoted to next level can upgrade themselves with managerial courses as well. Likewise new personnel who are hired for the managerial posts can make themselves more compatible by gaining the technical knowledge of that domain. The study also highlights that for further growth in an organization, the staff may need to acquire skills pertaining to leadership, business development, cost-benefit analysis, revenue generation and project management. Working professionals not only require concepts building in a particular course but also come up with their live problems which require a strategic solution. In the current organizations where the employee is playing a dynamic role, the blended approaches of ODeL has immense role.

Keywords: Capacity Building, ODeL, Outsourcing Industry.

83. MOOCs for Vocational Education Training (VET) in the Indian Context: Some Implications for the Audio-Visual Media

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In 2015, GOI announced ‘Make in India’ programme with focus on India providing skilled manpower to domestic and multinational companies. It further anticipated that India, which has more than half of its 1.3 billion population under 25 years of age, has the potential to provide skilled manpower to the world specially the ageing developed world. While hoping to reap benefits from the demographic advantage that India holds, it was assessed that much needs to be done in the area of skilling the youth to meet the levels of international standards in various sectors. Even where the artisans and craftsmen are skilled from generation to generation, there was scope to upgrade skills and imparting knowledge of market etc. Moreover, assessment and certification of skills, capability and potential of craftspersons may facilitate providing meaningful and gainful employment.

However, the challenge to transform India’s workforce into skilled manpower over next few decades is a mammoth task when the competition is from countries such as China. In response to the nature of demand, GOI in 2009 started National Skill Development Policy which has the objective to skill 12-15 million of youth every year. While the 12th Five Year Plan revised and raised the targets for Vocational Education and Training, a policy on ‘National Vocational Educational Qualification Framework’ (NVEQF) has been formulated. Because within the conventional system, Schools and Technical Institutes offer a limited intake for VET, there is much scope for Open Distance Learning (ODL). With emerging Open Distance e-Learning (ODeL) solutions such as MOOCs, there is a greater promise to succeed. GOI has been encouraging adoption of MOOCs as an educational platform to reach out to the masses.

In this endeavor, EMPC, IGNOU too has recorded number of video based lectures. However, the audio-visual media requirements for VET in MOOCs are different as more than lectures, it is demonstrative videos that may be relevant in a given context. Also understanding of conceptual levels may vary as audience may be more grassroot smart rather than intellectual types. To deliver practical training of vocational nature in a virtual environment necessitates giving testing exercises, evaluating practical performances, preferably in small groups so as to facilitate guidance and certification. This becomes even more difficult as those seeking such training and certification of skills/knowledge may belong to marginalised segments of society where socio-economic and cultural preferences have a role to play. The paper will elucidate on such aspects and suggest relevant approaches for consideration of practitioners.

Keywords: Make in India, Assessment and Certification of Skills, NVEQF.
84. Skilled India: Are We Ready?

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We are witnessing the coming of a new era in the country with initiatives like “Make in India”, “Swachh Bharat”, “Digital India”, “Start-up India”, “Stand-up India”, etc. All these missions force us to worry about our capabilities and readiness. This requires systematic planning and meticulous implementation. For all the above missions to become realities, the initial step would be to “Skill India”.

With India being the most populous youngest nation, the presence or absence of skills is going to make or break the destiny of India. “Skills” today can be labelled as “Bharat BhagyaVidhata”. Given the importance of skills which has the ability to transform the demographic disaster to demographic dividend for India or vice versa, it is absolutely imperative that we have a system in place that systematically skills the youth of the country and produces appropriately skilled youth in sync with their cultural context, aspirations and the demand of the market.

Traditionally, the ITIs and the Polytechnic colleges of the nation were put in charge of imparting “Vocational” training and producing skilled manpower in the nation. This system of training was considered to be inferior to the conventional modes of education. This meant that students opting to be trained in ITIs and Polytechnics were thought to be lesser in intelligence and incapable of coping with the conventional educational system and therefore, by extension, inferior. This kind of thinking, of treating tactile skills involving dexterity of hand being somehow lesser than mental skills, owes its origins to the ‘Caste System’. The conventional education system, on the other hand, did not lay enough importance on “Experiential Learning”.

The paper highlights the gaps in the support systems that have to be strengthened to carry out a mission like “Skill India” with the much needed speed, stability and scalability. The challenges are examined from three perspectives, namely, Social, Economic and Environmental which are the three dimensions of Sustainable Development. A closer look at the support systems created for Skill Development in the country raises a grave concern – Are we going to miss the bus?

Keywords:

85. Academic and Professional Well-Being: Exploring the Potential of Open Educational Resources for Continuous Professional Development of Teachers in Higher Education

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The rapid change in the domain of knowledge has changed the nature and spirit of teaching in higher education. It demands teachers of higher education to be updated and to strive for their continuous professional development to do justice with the profession. The contextual realities of the higher education rest lots of responsibilities on the teachers for their own professional development under the constraints of time and space (limiting the continuous professional development opportunities). The constraints of time and space have started becoming weak with the advent of technology in general and Open Educational Resources in particular which can mediate and provide continuous learning experiences to the teachers. OER platforms provide for a two-way treatment of the knowledge by the beneficiaries i.e. the can also contribute to the domain of knowledge along with its access. Thus, there is a lot of scope for getting benefited by experiential and hence the stable learning. With this backdrop, an initiative is planned to study the nature and pattern in usage of open educational resources of the teachers working in Central
University of Jammu. It can be treated as a case which focuses on exploring the professional development needs of the teachers of Central University of Jammu which can be considered as unique due to their geographical location and association with a State having special Constitutional status. Under the reflection the needs so explored, an attempt is made to propose a functional plan for enriching the teachers’ experiences with the open educational resources as an outcome of the study.

**Keywords:** Professional Development, Continuous Learning Experiences, Open Educational Resources

### 86. Need for Capacity Building in ODL through Blended Approach

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Education, especially distance education has a special role to play in the nation’s development. In this context it becomes extremely significant to enhance research capacity and to support innovation in education. The ODL systems are facing noticeable challenges in providing quality service to the beneficiaries. In order to generate people and resources to meet these challenges it is essential to prioritize capacity building to render ODL institutions relevant for country’s future educational needs. ODL institutions have a crucial role to play as centres of leadership development, innovation and research. This highlights the need for unique models for capacity development in order to develop individual capabilities in terms of skills, knowledge and competencies. The present paper discusses the various capacity building measures for continuous professional development being undertaken in ODL system, especially in Indira Gandhi National Open University (IGNOU). The paper presents the need for integrated blended approach in capacity building and proposes a comprehensive capacity building model using both online and face-to-face modes for conducting training programmes for distance educators. The model also highlights the use of social media tools for heightened interactivity and communication, resulting in strengthened capacities. The paper advocates long term relationship and association building along with follow-up monitoring for better impact of the training programme, in place of one-off training workshops which are the norm in present scenario.

**Keywords:** Capacity Building, Blended Approach, ODL, Open University.

### 87. A Study: e-Learning Skills among Distance Learners in Tamil Nadu

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Distance education has a history that spans almost two centuries (Spector, Merrill, Merrienboer & Driscoll, 2008) and this time period represents significant change in how learning occur and is communicated. From basic correspondence through postal service to the wide variety of tools available through the Internet, society has embraced new forms of communications through the years. Study examining the effectiveness of e-Learning in distance education has increased in recent years. This is primarily due to the possibilities increased for IT and learning as well as institutional attention to the learners. In India, the advent of the Internet and its online learning platform has opened the door to big changes in distance education in India. It became relatively easy to deliver high quality course content through the internet. Since its inception, students can get information about the university, programmes they offer and other information of functioning of Regional Centres and learner study centres, and/or from the official website. Once they get admission to the programmes, they want to pursue through online or respective learner study centres. Then they get the softcopy of self learning materials and other required documents. They can have online facilities to put their queries through e-mail and chatting. Therefore students at remote locations can get all the information in time. Internet allows easy communication among students and
between students and the academic counsellors. In this study how the learners can use the e-Learning facilities and how best they are utilizing the services of e-Learning through distance e-Learning mode.

**Keywords:** Online Courses, Self Learning Material, Internet.

### 88. Teacher Educators’ Practices towards Continuing Professional Development through Open Distance Learning

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The access to Continuing Professional Development (CPD) which leads to knowledge and skills to teacher educators is enormously important at the present context where they teach trainee-teachers for two years in B.Ed. and M.Ed. programmes. Skilled teacher educators will help to move forwards and progress in two year teacher education programmes in India. It is not possible to offer continuing professional development to vast number of teacher educators through formal educational set up and Open and Distance Learning (ODL) can complete the task of helping the teacher educators for their continuing professional development through various programmes related to teaching. ODL is becoming more and more significant for continuing education, skill updating of service personnel and for quality education (GOI, MHRD 2014). Open Distance Learning System (ODL) has emerged as a vibrant and dynamic component of education system. Open and Distance Education keeps Teacher Educators preparation in academic subjects, pedagogy, and personal development (Robinson, B. & Latchem, C, 2013). This qualitative study which conducted through survey method establishes the 40 teacher educators who work in Puducherry B.Ed. and M.Ed. colleges and their practices towards CPD through ODL.

**Keywords:** Open Distance Learning, Continuing Professional Development, Teacher Education.

### 89. Role of ODeL in Enhancing Employability Skills for Persons with Disabilities – Case Study of IGNOU

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Financial independence of persons with disabilities is indispensable for their self-esteem and dignity and employment opportunities (including self-employment) are important tools for providing financial securities and independence for persons with disabilities. Persons with disabilities, in fact, have their own specific skills, talent and capabilities and if these are tapped properly they can make significant contribution in a country’s economic development. Employment provides livelihood opportunities and self-reliance for persons with disabilities. However, it is a matter of concern that India has a significant number of disabled persons who are in the employable age of 15 to 59 years but most of them are either unskilled or unemployable. Their potential to contribute to national growth and development has largely been ignored and remained un-tapped.

Imparting vocational training and enhancing employment opportunities through skill/need-based programmes for the large number of persons with disabilities is not only crucial for enhancing the quality of lives for individuals with disabilities and their families but also for the larger nation-building exercise. Several initiatives have been launched in recent years for skill-based vocational training and programmes for large number of un-skilled labour force in India. Participation of persons with disabilities in the existing skill-based training programmes and schemes of the government are however not up to the mark. There
is a need to scale up the skill-based training infrastructure for persons with disabilities. IGNOU as a national university with jurisdiction all over the country can play a crucial role in designing and implementing skill-based training and infrastructure in order to meet the huge demand of employable skills requirements for persons with disabilities.

In light of the above, this paper is intended to highlight the need for enhancing the employable/vocational skills for persons with disabilities through various skill/need-based programmes. It analyses the existing skill development programmes and policies targeted for enhancing employment opportunities for persons with disabilities. More specifically the paper is intended to identify specific programmes and trust areas on which IGNOU as the national ODeL University can play a crucial role in promoting skill development for persons with disabilities.

Keywords: Financial Independence, Disabled Persons, Employable/Vocational Skills.

90. Teleteaching – Quality issues in Content Presentation

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Teleteaching, or a teleclass is generally regarded as an extension of the classroom to the distance learner. This connotation has certain implications for the way in which ‘television’ medium is used for teleteaching. The teacher subconsciously tries to replicate a classroom without realizing that the instructional delivery medium is a television interface. On the basis of previous research and author’s own experience in the field, it is argued that teleteaching is a ‘hybrid form’ of television and classroom and therefore must combine the presentational attributes of television (such as video clips, demonstrations, experiments, interesting backdrops, and imaginative graphics etc.) with good classroom practices (such as gaining learner attention, nonverbal cues, recapitulation of key points etc.). These elements when integrated aesthetically in the teleteaching also tend to minimize the stress arising out of watching the teacher through a mediated screen for several minutes.

Recently launched MHRD’s Swayam Prabha (DTH Project for Educational Excellence) is dedicated to provide quality ‘teleteaching’ for various levels and sectors of education in the country. Realising the existing quality concerns of ‘tele-teaching’ in the country, the project document has laid strong emphasis on achieving and maintaining high standards of content and presentation for its 32 channels which have been handed over to major educational institutions of the country including IGNOU, IITs, CEC, NIOS. Under the project, Committees have been constituted at different levels to monitor the quality of teleteaching. However, it is a massive task to monitor 32 channels, each one of them producing 4-hour of fresh content everyday, for six days a week. On the other hand, it is easier for individual institutions involved in teleteaching to address the quality issues at their end.

The most important step in this regard is the proper orientation of subject matter experts (SMEs) in the use of television medium well before the telecasts session. Production values, whether in terms of getting relevant video material to supplement the lecture or preparing an interesting meaningful backdrop of the teleclass should be given due consideration for quality assurance of the same. Insufficient time and resources, lack of preparedness, whatever be the reasons for us not been able to produce good quality ‘teleteaching’ need to be addressed without any further delay as teleteaching is likely to play a major role in Indian educational scenario soon.

Keywords: Quality Concerns, Subject Matter Experts, Quality Assurance.
91. Imparting Virtual Teaching through Blended e-Learning — A North East Initiative

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Imparting education has seen a tremendous makeover in the recent years, with the shift from traditional classroom based teaching to blended mode of teaching occurring through e-Learning and its technological variants. This need for e-Learning based education is more so in the remote areas and in those areas where there is dearth of educational support services. A similar such need was envisaged in the North East region where the educational institutions face frequent fallout of the faculties resulting in the disruption in completion of the courses. To overcome such need, this Virtual Teaching based e-Learning programme has been envisaged to provide handholding support to National Institute of Technology (NIT) Manipur which is facing faculty crunch in conduction of their B.Tech program. The e-Learning programme has enabled to fill the gaps in running the B.Tech courses of NIT Manipur by handling their teaching load and in overcoming their problem of shortage of faculty. The e-Learning programme consists of design, delivery and conduction of online courses for the B.Tech programme of NIT Manipur, wherein the course management and course conduction of two courses in each semester is done completely through e-Learning mode. The Virtual Teaching Programme comprises of online course conduction through e-Learning Management System (LMS), with provision of live streaming and recorded versions of faculty video lectures, online evaluation through online assessments and assignments and multi-tier feedback system and report generation.

This paper highlights the details of the e-Learning based virtual teaching programme being delivered to the North East students of NIT Manipur in a blended mode. The paper provides the strategy used for imparting blended virtual teaching, findings on the benefits, and learner analytics and the multi-tier feedback system used to examine the benefits.

Keywords: e-Learning, Virtual teaching, LMS, multi-tier feedback system.

92. ODeL Programmes for Developing Employable Skills and Sustainable Livelihoods

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The start-up India is a business initiative adopted on 16 January, 2016 by Government of India under PM Modi to build a strong eco-system for nurturing innovation that will drive sustainable economic growth and to generate large scale employment opportunities. India with huge need in every respects but the growth in the innovating ideas are slow as compared to other developed countries, it has become a consumer of finished goods especially from US, China and Japan. To encourage the youth, the current government has implemented start-up action plan with guidelines, easy registration, funding, mentorship, tax exemption etc. to make India into business hub. If this Start-up Action Plan gets success in the coming years then it will generate employment, the business culture will be developed and become like China. The encouragement and funding is needed for the initial years for the start-up. In North East India which has been backward for many years and nowadays the start-up ideas are flourishing among the youth. The schemes in the start-up for the tribal, dalit and women are becoming supportive and fruitful but the hard-work is a must from both the side 'government as well as individual’ to get success which can lead India into prosperous and vibrant economy. I will deal especially in the region of north-eastern India how the start-up initiatives plan can boost the economy and generate employment which has the
potential to become India’s powerhouse in terms of trade and investment. Given its strategic location, the region can be developed as a base for India’s growing economic links not only with the ASEAN but also with neighbouring countries Bangladesh, Bhutan and Nepal.

**Keywords:** Sustainable Economic Growth, Start-up Action Plan, Economic Links.

### 93. Challenges in Imparting Skills through Open and Distance Learning (ODL) in Practical Based Agriculture Programme

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Agriculture is the backbone of the Indian economy and it employs almost 50% of the labour force. The main source of livelihood for more than 80% of the rural poor is agriculture and allied sectors in the country. The human resource development in the field of agriculture plays an important role for sustaining the agriculture production and productivity. Keeping this in view, the School of Agriculture (SOA), established in 2005 at IGNOU, strives for a flagship role in turning the rural unemployed youth to first rate agricultural entrepreneurs and agri-business managers of tomorrow. Since 2006, the school is offering a number of skill based educational programmes through its robust network of student’s support system i.e. Regional Centers and Study Centers. The school faces a number of challenges in offering these practical based agriculture programmes to the target group in different parts of the country. The present study will investigate various issues and challenges related to pedagogy and implementation. The data will be collected from the various stakeholders like students, regional centres, and study centres. The outcome of the present study will aid in improving the implementation strategies for cost effective and sustainable human resource in agriculture and allied sectors through Open and Distance learning mode.

**Keywords:** Agriculture, Rural Unemployed, Cost Effective.

### 94. Youth Transformation and Skill Development through Open and Distance e-Learning

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In the era of technology, e-Learning is playing a vital role in transforming youth in India. The technology of open and distance e-Learning (ODEL) facilitates easy educational access which is beyond the boundaries of educational institute. As e-Learning is associated with the style of learning and style of teaching, it is important to examine the adoption process of individuals. Use of technology enabled learning is widely accepted by the educational institution around the world and skill development is also possible among the youth through this mode of learning. Government of India has taken several steps to strengthen the youth through electronic sources of e-Learning. The purpose of national digital literacy mission also favors the IT literacy for the youth to enable them to effectively participate in the developmental process of the country. There is a need of an effective virtual environment between e-tutors and learners, which is a challenge to the current education system. This mode of learning facilitates a meaningful channel for fulfilling the skilling needs of the youth with the help of its academic, vocational and professional programmes. The purpose of this paper is to check the opinion of youth in acceptance of technology through the various factors of technology acceptance model. The study is conducted in the major districts of Haryana and Uttar Pradesh to find out the opinion of the youth regarding open and distance e-Learning. Total sample of 450 respondents are asked to fill the questionnaires to understand the different factors in this
context. Managerial implications and suggestions are also proposed to the policy makers for betterment of the skilled youth of the country.

**Keywords:** Youth, Skilling, Technology Acceptance Model.

**95. Entrepreneurship Development of Rural Women through Vocational School Education**

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In India the overall, labour-force to population ratio (in the age group 15 years and above) is at 56 per cent which is low when compared to nearly 64 per cent for the rest of the world. This low participation rate is largely because of the low female labour force participation rate (LFPR), which is dismal at 31 per cent and is amongst the lowest in the world and the second lowest in South Asia after Pakistan. Further, there has been decline in the work participation of females during 2005-12. Taking all age-groups into account, it stood at 29 per cent in 2004-05, decreasing to 22 per cent in 2011-12. The employment of women remains 20 to 40 per cent below that of men.

Women in general are disadvantaged in the labour market. In rural areas the scenario is aggravated where the women have less access then men in education and training and, less command over important resources like land, credit and capital. Despite of poor employment status of women, the statistics for the girls enrolled in vocational course in CBSE is higher than that of the boys.

This paper attempts to present a framework where short term (modular) vocational courses for girls studying in CBSE schools/dropouts/women will be taught in accordance with the local resources available and the forecasted skill requirement in the area. The course shall be completely practical oriented targeting the learning of skill rather than rote learning. Once learned, the learner can practice and innovate individually. This will depend on the enterprise of the learner. The outreach of Open and Distance e-Learning (ODL) method in reaching the inaccessible areas and in imparting of skills will be reviewed.

**Keywords:** Entrepreneurship, Rural Women, Vocational Courses.

**96. Learners’ Attitudes Towards Use and Effectiveness of Web TV as an Instructional Media at the Bangladesh Open University**

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Bangladesh Open University (BOU) introduced Web TV — a video-based interactive educational web portal – along with the other media such as print, radio-TV broadcasts, and tutorials in the year 2015. It was visualized that WebTV can result in significant gains in basic and higher order learning of the BOU students as most of them use internet in the smartphones. The objective of the Web TV was to provide learners with access to more learning information. Introduction of technology is not an option for BOU; it is obligatory by the BOU Act 1992. It introduces new technology when it comes into existence, say, web TV, then BOU assesses the impact of deployment of the technology. Therefore, at this juncture, this study is significant for the BOU. The study employed two data collection methods survey through an attitude scale. A survey questionnaire was administered on 212 learners to capture their perceptions on Web TV. This sample though is quite low in relation to the number of total university enrolment. Participants of this study were interviewed and the interviews were recorded for the purpose of analysis. In this study, the participants are BOU students who were enrolled in the BOU programmes and attended in the
Regional Centres (RCs) for seeking information. The findings of the study indicated the challenges that the participants faced: expensive and technical difficulties in mobile. Data shows statistically significant increase in the use of Web TV when students are informed beforehand. The impact of WebTV on the cognitive development of BOU students was tremendous.

**Keywords:** Web TV, Cognitive Development, Video Based Interactive, Web Portal.

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**97. Online Admission System: Issues and Challenges – A Case Study**

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Information Communication Technology (ICT) is considered as new scope for delivery of education system. Many universities have integrated ICT in their activities. One of the major integration is admission through online. Indira Gandhi National Open University (IGNOU) is a pioneer university for open distance learning, offering 226 certificate, diploma, degree and master degree programmes for distance learners. Millions of learners benefited by enrolling themselves through IGNOU for higher education and lifelong learning. Admission in these programmes is done twice in a year i.e. January and July sessions. Online admission system of IGNOU was designed, developed and implemented from May, 2015. IGNOU developed an integrated application system which have both offline and online admission systems to facilitate the students who do not have the desired facility to go through online admission system.

The aim of the present study is to highlight the best approaches of IGNOU admission system and analyse the “issues and challenges of online admission system faced by various stakeholders” such as student, Regional Centres (RCs) and Student Registration Division (SRD). The feedback obtained from the students and RCs will be analysed using suitable statistical methods. This paper will also discuss implementation and benefits of the online admission system. The findings and recommendations of this study will help to improve the admission process of university.

**Keywords:** Online Admission System, Quality Assurance, Digitisation of Student Records.

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**98. Digital Financial Literacy through ODeL: A Study of Skill Development Efforts Under National Digital Literacy Mission with Special Reference to Digidhan Mela and Digital Payments in India**

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Ever since the ruling government at the centre took charge in 2014, a push to Digital Transformation of India was given through the Hon’ble Prime Minister’s Rs. 100,000 crore scheme-Digital India. One of the nine pillars of this scheme is the implementation of National Digital Literacy Scheme. Under this scheme, Govt. of India is making concentrated efforts to make at least one person digitally literate in every Indian household. This scheme is under implementation since 2014 by the name of National Digital Literacy Mission (NDLM). The focus of this paper is on studying the ODeL and blended learning approaches being used in the NDLM to develop the digital skills of the Indian citizens so that they can better utilize the robust and expanding digital infrastructure in India. This study becomes all the more important in the wake of post demonetization in India since 8th November, 2016; digital payment related skills of more and more citizens are being developed under the scheme by organizing Digidhan Melas across the country. This paper presents a detailed study of such skill development efforts through which
Indian citizens are being skilled to use digital platforms and apps such as BHIM (Bharat Interface for Money), especially those being implemented through ODeL approach.

**Keywords:** Digital Transformation, Digital Skills, Post Demonetization.

### 99. Exploring Delivery of Non-Formal Education Programmes through ODL by Engaging CSR

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Non-formal education is a process of sharing, exploring, analysing and judging together with learner participation. Non-formal learning through distance learning approaches can be effective in changing people’s attitude/behaviour and in motivating rural communities to undertake action leading to improvement in their socio-economic conditions. The role of ODL has been used to considerable effect in the non-formal and community development sectors of education. There is evidence of changes in attitudes through Radio Farm Forum programmes towards cultivation, family planning and establishment of income-generating ventures. Right from the early influential prototype — the Canadian Farm Forums prototype, non-formal educational projects using radio to support healthcare in Sudan and rural women in Mangolia, radio and televised dramas in countries like Gambia and Nigeria to educate people on health issues, to radio programmes in India, today ODL for non-formal education has come a long way. Open universities in Asia have been providing non-formal education through functional education projects in rural areas. In India too extension and community education programmes have been provided by open universities.

Projects are delivered through a wide range of organisational structures involving community development services, universities, colleges, private institutions, popular movements and non governmental organisations. In recent times the role of CSR has become prominent in engaging directly with local communities, identifying their basic needs, and integrating their needs with business goals and strategic objective. This paper highlights the role of CSR in assisting the state to improve the effectiveness of public education system by implementing non-formal education through ODL programmes. Programmes for inclusive growth have been highlighted in Section 135 of Company’s Act. The Azim Premji Foundation, Microsoft Corporation (India), Citibank, Hindustan Petroleum Corporation Limited, Gujarat Ambuja Cements Limited, are playing a major role in delivering non-formal education. Today’s non-formal learning refers to ideas such as competent based learning, problem based learning, quaternary learning and self-directed learning. Such learning processes are not bound by standardisations and regulations imposed by the formal education system. ‘Tacit’ and ‘explicit’ knowledge are converted through four processes — socialisation, externalisation, combination and internalisation, to enable learning to take place. Such projects can support inclusive goals. Project based approach in informal learning will help in shifting focus from the learning content to the problem to be solved. Simultaneously a percentage of CSR funds should be made mandatory for the ODL scholarship scheme. Conversely, non-formal education through ODL will contribute largely in enhancing the impact of CSR on livelihoods. Public-Private-partnerships for CSR where government ODeL institutions collaborate with the private sector should expand their partnerships to include communities, as not just beneficiaries but stakeholders of inclusive growth.

**Keywords:** ODL, CSR, Communities, Inclusive Growth, Partnerships.
100. Need of Vocational Education and Training for Capacity Building

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Education plays a major role in the life of every human being. Education helps an individual to achieve self actualization and it is only the proper education that makes one better equipped in raising one’s capability to contribute towards self and the overall social and national development. Through proper education and training and access to information would lead to better efficiency, productivity and performance. No doubt, skills and knowledge are the driving force of economic growth and social development for any country. Potentially the target group for skill development comprises all those in the work force, including those entering the job market for the first time, those employed in both the organized and unorganized sector. India has set a target of skilling 500 million people by 2022. One of the greatest advantages for the Indian economy is the sustained growth of the work force population. We have to convert the huge young population into demographic dividend. According to the India Skills Report 2014, two thirds of the skill pool is not ready for job. If India does not create enough jobs and its workforce not adequately prepared for those jobs, its demographic dividend may turn into a liability that will adversely impact economy of the country. A skilled person will have greater opportunity in the job market as well as his/her vertical or horizontal mobility will be easier. Vocational education in India aims to develop skilled manpower through diversified courses to meet the requirements of mainly the unorganized sector and to instill self employment skills.

The present paper deals with the importance of skill development programmes in the present day context and the role of Netaji Subhas Open University in promoting the skill among the rural youth in the state of West Bengal.

Keywords: Vocational Training, Skill, Demographic Dividend, Dropouts, Public-private Partnership.

101. Current Trends of e-Learning in India

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“Don’t limit a child to your own learning, for he was born in another time.”— Rabindranath Tagore

e-Learning is an approach to instruction and learning that utilize information and communication technologies to communicate and collaborate in an educational media. The level and impact of e-Learning varies in our life from stage to stage. These trends have also opened up new avenues for education and have brought about changes.

India is passing through a very critical phase of development and facing the challenge posted by rapidly changing technology and market environment. Today student feel school is not challenging or interactive enough. e-Learning has brought back the joy of learning through its innovative and interactive content and delivery. In distance education system, e-Learning became a new mantra for delivering higher education courses over really long distances. perceptions about how education is obtained. Students are now readily adopting technology as a medium for attending classes remotely, either through VSAT enabled classrooms or through virtual classrooms on the Web.

Keywords: Educational Media, Joy of Learning, Technology
102. **Student Support Services in Distance Education System with Special Reference to the Kamrup District of Assam: A Comparative Study**

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Education is a lifelong process. It is a subject that takes in to consideration the total human aspects of growth and development. As a democratic country, in India education has become our birth right. Therefore to give the educational opportunity to all the masses of the society, distance education system has gained importance here. Distance education is the education of students who may not always be physically present at a school. The first distance education course in the modern sense was provided by Sir Isaac Pitman in the 1840s, who used to teach a system of shorthand on postcards and receiving transcriptions from his students in return for correction. The University of London was the first university to offer distance learning degree from 1828.

In India also distance education has been emerged after the establishment of Indira Gandhi National Open University in New Delhi in 1985. Distance learning is modern system of non-formal education system. Most of the deprived students are able to get education through this system. We have already known that for the development of the society education is most powerful instrument. Therefore distance or open learning has become inevitable part in our social system.

Here, the investigator has made an attempt to study about the various challenges and issues of distance education system as well as the student support services. The selected study area is the Kamrup district, Assam. The Investigator will make a comparative study on student support services that are provided by the Indira Gandhi National Open University and Krishna Kanta Handiqui State Open University. It is expected that, from this study we will get a clear picture on support services. Even some necessary measures can also be suggested through this study in the selected area.

**Keywords**: Student Support Service, Distance Education, Non-formal Education.

103. **Assessing Entrepreneurial Skills and Awareness among Learners of Open Universities in India — A Study of BRAOU and UOU**

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For every economy, entrepreneurship has been a critical component of growth and development and has been instrumental in wealth creation, employment generation and social transformation. The entrepreneurial spirit is assessed as the driving force for the market as it brings creativity and creates plethora of opportunities for start-ups. These ventures foster socio-economic change in the country and help in achieving rapid, balanced and sustained rate of economic growth and global competitiveness.

Particularly nowadays, harnessing skills and competencies for entrepreneurial pursuits is the key concern for educators, institutions and curriculum developers across the states in India. Thus, Higher Education Institutions need to nurture entrepreneurial talents and pursuits for making education relevant to the individuals as well as to the society as whole. Particularly, coming to ODL system, distance education is characterized by adult learners therefore their experience, vast skills and commitment may amplify the efforts in producing greater number of entrepreneurs in the country.

In this context, it is imperative to assess the entrepreneurial skills and awareness of the learners enrolled in the Open Universities in India and accordingly for achieving this research objective the study is delimited
to Dr. Bhimrao Ambedkar Open University (BRAOU), Hyderabad and Uttarakhand Open University (UOU), Haldwani. The paper intends to assess the entrepreneurship awareness and skills possessed by the distance learners enrolled in the open universities.

Thus, the main aim of this paper is to nurture the entrepreneurial skills of these distance learners for embracing the entrepreneurship as the means for combating existing challenge of employability. The study shall also suggest the strategies for enhancing entrepreneurship awareness and skills of the distance learners as viable means for sustaining in the present scenario.

The study shall adopt descriptive research method to attain its research objectives. Data for the study shall be collected using self-designed questionnaire to examine entrepreneurship awareness and skills. Accordingly, the appropriate descriptive and inferential statistics shall be used for statistical analysis in accordance with the objectives of the study.

This paper is a modest attempt to study the role of the ODL institutions in harnessing entrepreneurial skills as these institutions are presently set for an educational paradigm shift backed by Information and Communication Technologies, Online Learning, MOOCs and the likes.

**Keywords:** Entrepreneurship, Skills, Awareness, Open Universities.

**104. Assessment of Skills Acquired by the Learners in Organic Farming under Open and Distance Learning (ODL)**

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Organic farming is the production of food and fiber without use of any synthetic chemical at any of its stages. It follows certain standards and norms. In other words, it is a holistic management system in which the soil is fed to feed the plants with proper care of environment health. It is receiving greater attention in the present economic and health conscious era. Currently, worldwide, 2.3 trillion farmers are engaged in organic production. The Indian organic industry has sustained an annual growth rate of 50-60%. Almost every state in the country produces organic products. Recently, Sikkim state has declared itself as fully organic farming state.

There are 6,50,000 farmers registered as organic farmers in India, the highest number in the world. India is the largest organic cotton (74.2%) producing country in the world followed by China (10.5%). It ranks 33rd in terms of total land under organic cultivation and 88th in terms of the ratio of agricultural land under organic crops to the total farming area. Maximum area under organic farming is in Madhya Pradesh (52%) followed by Maharashtra and Orissa. During 2012, 130 million euros were earned by exporting the organic food products.

Considering the growing awareness, demand and expansion of organic farming in the country, Agricultural and Processed Food Export Development Agency (APEDA), GOI funded development of a Certificate programme in Organic Farming to Indira Gandhi National Open University. The programme was launched during 2008-09 and is currently on offer under Open and Distance mode of education. The objectives of the programme are: to impart knowledge and proficiency in organic production practices, Certification process and marketing of organically raised agricultural products, and to promote self-employment and income generation. As evident, a great emphasis was given to build skills in the learners to make them employable, including self-employment.

In the present study, an attempt has been made to assess the skills built in the learner in the area of organic farming through open and distance education to observe the impact of skills in employment. In this regard, a survey was undertaken with the help of open ended questionnaire using online and offline modes. The target group consisted of the pass-out learners of the programme. The questionnaire contained
important skills (employable) of the programme and the learners were asked to furnish their opinion on them. Suitable statistical method was used to analyze the data and draw the inference.

**Keywords**: Holistic Management System, Organic Industry, Self-employment.

**105. Imparting Skills for Inclusive and Sustainable Development: An Open Schooling Perspective**

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Despite the emphatic stress laid on vocational education and training in our country, there is still a shortage of skilled manpower to address the mounting needs and demands of the national economy. It is estimated that only 2.2% workforce in India has undergone formal skill training while only 8.9% non-formal vocational training.

National Institute of Open Schooling (NIOS) being a national level institute may be the game changer by reaching the unreached and skilling India by offering demand driven market oriented vocational courses. Keeping this in view, enrolment trends of last five years i.e. 2011-16 were analysed to find out the role, NIOS is playing in skilling India and bridging the existing skill gap and the future perspective.

It was found that the admission trend in NIOS vocational courses is towards upward from 2011-16, with more women joining NIOS than men. Certificate courses in Beauty Culture, Cutting and Tailoring, Community Health and Basic Computing are the most popular vocational courses at NIOS.

This paper summarises analysis of the admission data critically and the skill acquisition, bridging skills gaps, skill up-gradation of urban and rural youth, girls/women and special learners by Vocational Education and Training (VET) Programmes of NIOS.

**Keywords**: Reaching the Unreached, Skilling India.

**106. Inclusive Curriculum Development in Higher Education: Assurance of Access, Equity and Quality**

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The area of disability study has remained somehow unexplored and unaddressed in the mainstream academia. The disabled people constitute one of the marginalized groups of Indian society. The government policies narrowed down their scope to certain groups, where the disabled people were paid little attention in terms of education employment and other equal opportunities. Within this broader framework, this paper aims to look at the opportunities and challenges for the persons with disabilities in higher education.

Education of the people with various disabilities has marched a long way; from special to integrated and now, from integrated to inclusive. Providing education to the unreached including people with various disabilities is one of the prime goals of all conventional, correspondent and distance educational institutions. Inclusive education can be defined as the disabled and non-disabled young people learning together in colleges and universities, with appropriate networks of support. Here, inclusion means enabling students to participate in the life and work of mainstream institutions to the best of their abilities in accordance to their needs. It will enable them to receive the same learning experience as their contemporaries get.

 Provision of quality education to the people with various disabilities is possible in higher education only by adopting inclusive support mechanisms. Inclusiveness refers to universal accessibility for all from every
prospects; starting from the admission in a course/programme till its successful completion. We have to adapt the principles of universal design and universal accessibility. In addition to this, assistive technologies work as enhancers or extra tools to ensure the usage of various services given to the students. This paper will explore some of the methods and mechanisms by which we can make our curriculum and courses more inclusive in higher education for the students with disabilities. It is widely agreed that only inclusion has the potential to reduce fear as well as various limitations of the students with disabilities and build friendship, respect and understanding about them in the society.

Keywords: Disability Study, Inclusion, Quality Education.

107. Development of Self Learning Materials in Open Distance Learning: A Study on Skills, Competencies and Quality in Training Programmes of STRIDE, IGNOU

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Teaching through self-learning materials is catching on throughout the world in the developed as well as the developing countries. This mode of education will continue to flourish as more and more open distance education institutes/universities are coming up to meet a variety of educational needs of the ever increasing number of learners and fast changing societal conditions. Besides subject based teaching, much professional and industrial training is now imparted through self-learning packages. Such materials are needed for in-service education, life long education etc.

The learners in distance education have less contact with either the institution or the tutor, and depend heavily on these specially prepared teaching materials — largely pre-planned, pre-produced and pre-packed. It is a fact that the success and effectiveness of distance education systems largely depends on the study materials. Thus, in developing self-learning study materials, the course writers have a crucial role to play. The development of self-learning materials depends on various innovative means and ways of communication to suit it to the needs of learners.

To address these kinds of needs of open distance education institutions, the Division of Distance Education was started in 1986, soon after the establishment of IGNOU in 1985 which was later upgraded into Staff Training and Research Institute of Distance Education (STRIDE) in 1993. STRIDE has been conducting training and capacity building activities for IGNOU, State Open Universities (SOUs) and Distance Education Institutes (DEIs) in India and Abroad. More than 500 major training programmes have been conducted by STRIDE since 1985 on various major aspects of ODL including the development of Self-learning materials (SLMs).

During these many years, a number of professionals from various ODL institutions across the country have been imparted training on design and development of quality SLMs by STRIDE. It has also developed very comprehensive training packages and materials in this regard. The STRIDE faculties also share their expertise and visit various institutions for conducting capacity building programmes for their faculty and course writers. Within this backdrop, the paper intends to explore the intricacies and challenges being faced in developing of qualitative self-learning materials. This will also examine weather all the components and requirements have been accommodated positively in a democratic manner with assurance of all quality in the SLMs or not. It tries to analyze the ‘inclusive’ character of the training programmes by critically looking at their design and development. To put it differently, the central theme of the paper is to look at the impact of training provided by STRIDE in this context. An attempt will also be made to study the response of different ODL institutions towards these capacity building programmes.

Keywords: Self-learning Packages, Capacity Building Programmes, Inclusive.
108. An ODeL Framework for Offering Teaching and Learning Services to Students with Disability

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As new aspects of Information and Communications Technology (ICT) are emerging, it is giving new hopes for learner with disabilities. Despite lot of issues and complexities, challenges of developing tools and services for disabled are taken sincerely; as a result ICT is being seen as a boon to counter difficulties related to disability and opening new doors for the social inclusion of disabled people. Information and communications technology and assistive technology are being used for social inclusion, but these opportunities are specifically more significant for people with disabilities. People with different types of disability are using assistive technologies for their daily activities more than people in general.

This paper briefly explains the tools and technologies being beneficial for people with disabilities. In this paper an ODeL framework is proposed. This framework considers different aspects of teaching and learning to be offered to disabled learners as per their specific requirements. Multi-format based system where different types of formats of course contents including audio, video, text, animation are considered. Along with multi-format content different tools like screen magnifiers, screen readers and keyboard and mouse alternatives for disabled are helpful for learner with different types of disabilities to participate in teaching learning process on the basis of equality. This framework uses learner profile analysis to identify the matching available format of content and other learner supports such as mentoring and continuous assessment.

Keywords: Inclusion, Disability, Assistive Technology, Multi-format Content.

109. An Investigation to Evaluate the Potential of Virtual Laboratories for Skill Development and Capacity Building in Environmental Science

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Environmental Science is a laboratory and practical based scientific study aims at deciphering and explaining how life on earth is sustained, what leads to environmental problems and how such problems can be solved effectively. Environmental crises and catastrophes accelerates the demand for Environmental Science Education and drives the demand for sustainable and practical solution to environmental problems. The educationist and learners of Environmental Science understand comprehensively the challenges entwined in exhaustive study of cause – effect of environmental problems. Consequently, the curriculum developed for Environmental Science in most universities is a rational integration of theoretical underpinnings and learning by doing perspectives. It is believed that the establishment of physical laboratory for teaching Environmental Sciences is cost intensive and resource intensive exercise. Eventually, the educationists were eager to find opportunities and possible application strategies in virtual labs. Virutal reality technology aids in the creation of virtual laboratories, which will simulate the processes and actions that could take place in real laboratories. With this perspective at the background, a questionnaire based survey was conducted to evaluate the potential and suitability of virtual laboratories in teaching Environmental Science courses. The respondents were the learners and experts in the field of Environmental Sciences. The survey results indicated the potential and suitability of virtual labs in executing laboratory exercises predominantly in the domain of Climate Change Studies, Spatial Techniques like Remote Sensing and GIS, Pollution Chemistry and Biodiversity Studies. The experts and learners opined that the virtual lab would enhance the methodological, analytical, interpreting and presentation skills of the learners and positively result in capacity building of human resources in the domain of Environmental Science. Further,
the respondents invariably opined that virtual labs could principally supplement the traditional lab based exercise and have huge potential to stimulate and enrich the learning experiences.

**Key Words:** Online learning, Virtual reality, Simulation studies.

### 110. Skilling Youth for Nation Building — Policy and Initiative

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The important objective is to create opportunities, space and scope for the development of the talents of the youth and to develop more of these sectors which have already been put under skill development. The new programme aims at providing training and skill development to youth. The emphasis is on i) providing training support and guidance for all skills, ii) to skill the youths so that they get employment, iii) more emphasis should be given on new areas, iv) the training programme should be on the life of International lives, and v) Programme should be based on Rural India Skill.

National Policy on Skill Development 2009 envisions empowering all individuals through improved skills, knowledge and nationally and internationally recognized qualification, to gain access to decent employment. The Vocational Education was started in schools in 1985 but the progress was very slow. The department of Secondary Education has revamped its existing scheme of Vocationalization of Secondary School Education in 2011 known by the name of Vocationalization of Secondary and Higher Secondary. AICTE has launched the credit framework for competency based skill and vocational education under the NSQF. The challenge of education and skills has to be met jointly by the Central and State Government and together to explore the possibilities of promoting employable skills by main streaming Vocational Education into our formal system of education.

UGC introduced Dean Dayal Upadhyay Centres for knowledge acquisition and up-gradation of skilled human abilities and livelihood (Kaushal) in University during XII Plan period. These centres would take up the Vocational Education to new levels and offer courses beyond Bachelor of Vocation (B. Voc) degree also. These centres would not focus on skilling alone but also develop entrepreneurship traits. The community college modal for university and college as envisaged, will be assessable to a large number of individuals of the community, offer low cost and high quality education locally, that encompasses both skills development as well as traditional coursework, thereby providing opportunities to learner to move directly to the employment sector or move into higher education. It provides a flexible and open education system.

The UGC has launched a scheme on 27th February, 2014 for skill development based on higher education leading to Bachelor of Vocation (B. Voc.) programme in universities and colleges under NSQF with multiple entry and exit points to envisage NSQF within the under graduation and meet industry requirements to become part of the global work force. B. Voc. courses provide vertical mobility of students coming out of 10+2 with vocational subjects and community colleges.

Vocational Courses of School of Vocational Education and Training, IGNOU is providing different types of skills to student. National Institute of open Schooling is also skilling youth on different vocational subjects.

**Keywords:** National Policy on Skill Development 2009, Vocationalization, Work Force.
111. Geospatial Education through Open and Distance Learning

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Today geospatial technology is the key to many areas of governance and commerce. India has become one of the largest user and consumer of these technologies for its development process. Several ministries and departments like Defence, Power, Agriculture, Urban Development, Disaster Management, Planning Commission, Census, Infrastructure, Rural Development, Science and Technology etc. have initiated huge programmes of thematic and topographic mapping and wide usage of geospatial applications. So there is a need to create skilled workforce in these mapping technologies and Open and Distance Learning (ODL) would provide a platform to create contents related to these technologies for masses in an effective and economic manner.

ODL can offer a wide range of innovative methods in the teaching of geospatial courses where most of the teaching and lab work can be done by software demonstration with the help of a personal computer as these courses do not require a wet lab. Learners could be taught through webinars, MOOCs (Massive Open Online Courses), OER (Open Educational Resources) etc.

This paper makes an effort in this direction. Students from different branches of engineering of Shobhit University, Meerut were registered for an online workshop in Geospatial education. The computer labs of the University were chosen for the purpose and lectures were given along with software demonstration of an open source software QGIS. Field demonstration of GPS (Global Positioning System) device was given with the help of a short video. Finally feedback of the students was collected.

This research paper could be taken as a kind of pilot study which could be implemented for similar courses offered by ODL institutions and would go a long way in creating skilled workforce and fulfil the real agenda of Millennium Development Goals.

Keywords: Geospatial technology, QGIS, MOOCs, OERs, GPS.

112. Development of Target, Employment Oriented Courses and Self Learning Material in Distance Mode by Swami Ramanand Teerth Marathwada University, Nanded (MS) : A Case Study

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Distance Education has occupied a significant position in the present educational scenario which is not only identified with distance media based instructions but also it incorporates the philosophy of Open Learning System. The rigidness in the formal education system and constraints imposed on educational opportunities have resulted inequalities in the society. The conventional educational system has to be replaced by the ODL to cater to the needs of the changing society and at the same maintain and enhance the quality too. All this becomes possible because the ODL ideology is equally based on the industrial concept and Information Communication Technology. It is known that the ODL institutions offer a wide range of courses in humanities, social sciences, commerce & management, agriculture, industries, technology and media for the learners who are deprived of educational opportunities due to different reasons. These courses are widely supported by the concerned institutional best practices with quality assurance. This type of education provides wider opportunities for the educationally deprived people to become lifelong learners remaining barriers to nationwide access. The ODL system has significantly contributed in growing needs of the society in pursuing higher education and training for professional development and acquiring opportunities in various sectors. The flexible and innovative features of the
ODL system have attracted the innumerable students for fulfillment of their educational requirements and desire. In this system the learners are provided with self instructional material in print, postal communication, counseling at the study centre through contact sessions, teleconferencing, e-lectures, support from tutors, mentors and counselors with the help of mail, telephones and computers. The teaching and learning strategies are being developed and designed for promotion of education and training with help of information communication technology, media, choice based courses and innovations.

Taking into account all activities mentioned above, the Centre for Distance Education, Swami Ramanand Teerth Marathwada University, Nanded (MS) has taken an initiative in the direction of implementing some of the best practices related to skill development programme in the distance mode. This paper mainly highlights development of target and employment oriented courses as well as self learning study materials, nature and importance for implementing such practices, utility of target and employment oriented courses and the self learning material, types of practices related to employable skills and how such practices help educationally deprived people for bringing them into the main stream of education to grab opportunities for the betterment of life through jobs and business. We are confident that this case study will inspire the other ODL institutions for the implementation of such best practices.

**Keywords:** Employment oriented courses, Skill Development, Best Practices.

113. Social Work Education through ODeL: Challenges and Opportunities

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The first University to offer Social Work Education in the open and distance learning (ODL) mode in India is the Indira Gandhi National Open University (IGNOU). The School of Social Work (SOSW) at IGNOU was established on August 16, 2007. The School aims in providing quality education in the areas of social work, family studies and tribal studies. The School is currently offering eight programmes of study in Social Work leading to various certificate, diploma and degree programmes. On an average, over 30,000 students currently pursue these programmes from within India and twelve countries from India’s neighbourhood and the African continent. The School is the first to take social work education to all the States and Union Territories in the country. It is the first school to have developed high-quality Self-Instructional Material (SIM) indigenously. Social Work is a professional skill based programme which has ample scope of applying the ODeL methodologies. Field work is an integral component embedded in all the programmes of social work. Social Work Research is another component in social work where ODeL technologies can be used. The paper will explore the scope of e-Learning or electronic learning for providing access, quality and equality in providing social work education. The paper highlights the e-Learning systems already available in imparting social work education through ODL. The use of Information and Communication Technologies (ICT) such as internet, wireless networks, cellphones, satellite communications, digital televisions etc. will be explored in reaching the unreached. The paper will analyze the use of emails, video conferencing, podcasting, webcasting, interactive whiteboards etc. in imparting social work education. The paper will further discuss the challenges and opportunities involved in imparting the social work education through the ODeL mode.

**Keywords:** Social Work Education, Self-Instructional Material (SIM), e-Learning.
114. Open and Distance e-Learning as an Essential Tool for Survival in 21st Century Organisations

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Recent trends in research confirm that 21st century learning is about developing the capacity and motivation to create, understand, interpret and communicate knowledge as an essential tool for survival. It is about training for versatility and the ability to contribute that knowledge to increasingly complex, nonlinear issues. Central to today’s teaching and learning are inquiry-based and student-centered approaches thoroughly blended by networks and collaborations involving state-of-the-art technology. New technologies can enhance the access to — and flexibility of — Learning, while also bridging the gap between knowledge and community. New e-Learning approaches, however, present opportunities and challenges for learners and teachers alike. Collaborative teaching and peer-to-peer interventions in distributed learning, while beneficial, are not always intuitive. Appropriate training tools and techniques, flexibility and incentives support education at all levels are emerging as innovative, student-centered and collaborative approaches. This approach, in turn, is eminently essential to teaching the key competencies and developing skills necessary for today’s knowledge economy.

Developments in Information and Communication Technologies (ICTs) have impacted all sectors of society, including the education sector. In higher education, application of ICTs in form of e-Learning is already changing teaching and learning processes. e-Learning is considered as a vital tool for education. As such the author emphatically believes that open and distance e-Learning as an essential tool for survival will be in increasing spree with the passage of time in all organisations of 21st century.

Keywords: e-Learning, Information and Communication Technology, Sustainability

115. ODeL for Life Long Learning: An Insider’s Perspective

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Education has always been looked upon as means of emancipation. It plays a pivotal role in development of an individual as well as society. Open and Distance Learning (ODL) is ray of hope for learners who have missed the chance to avail educational opportunity at right time and place and feel the pinch of being left behind. ODL attempts to provide prospect for those marginalized persons and sections to join the main stream of society.

ODL provides more access to higher education to learners with its flexible approach, wider choice of courses, qualitative instructional approach and cost effectiveness. The system came into force with establishment of UKOU (United Kingdom Open University) in 1969. India experienced ODL in 1982 with establishment of BRAOU, Hyderabad and later IGNOU in 1985. The advent of ICT has added the e-Learning aspect to ODL as well. Thus ODL is also known as ODeL (Open and Distance e-Learning). The open and distance system has reached a phase wherein it is important to look inwards, to understand the system comprehensively for its growth and development. This introspection of the system can be done more appropriately by the members who are practicing the system i.e. practitioners.

Therefore, an attempt was made to look at ODL from the practitioners’ perspective. What do they think of the system and how do they attempt to reach the unreached? Realizing the importance of Open and Distance Education, the Government of India has launched SWAYAM (MOOCs) and SWAYAM Prabha.
(DTH channel) as the online initiatives to reach all. SWAYAM and SWAYAM Prabha are ODeL in the true sense as efforts are being made to give credit of the learning through MOOCs and DTH. 88% of the practitioners agreed that MOOCs should be used and an equal percentage of 87.86% practitioners agreed that DTH should be used for anytime learning for learners. The constraints of MOOCs, online learning, measures to bring ODeL at par with face to face are discussed in the present paper.

Keywords: ICT, MOOCs, SWAYAM, Online Learning.

116. Building a Skilled Work Force for the Food Processing Industry: Learning from the Programme Evaluation Study of DVAPFV

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India is a major producer of food globally and food processing is one of the largest sectors of the Indian industry. It offers diverse opportunities for employment and is therefore seen as a vibrant area where skill training can be imparted. The National Policy on Skill Development and Entrepreneurship (2015, pg 52) states that the projected employment of trained persons in the area of food processing by 2022 is to be 11.38 million as against the employment base of 6.98 million in 2013. This is clear indication of vast future employment opportunities in the sector of Food Processing. In the XIth Plan itself, capacity building and human resource development, research and development in the area of Food Processing was a priority area for the government.

The School of Agriculture at the Indira Gandhi National Open University, New Delhi initiated the Diploma in Value Added Products from Fruits and Vegetables (DVAPFV) Programme with the aim of developing human resource in the field of post harvest management of fruits and vegetables and production of value added products from them. It was also intended to inculcate vocational and entrepreneurial skills to widen employment opportunities as well as self employment particularly amongst rural youth and disadvantaged sections of society.

The DVAPFV was launched in 2006 and in its initial years showed a healthy rise in enrolments. However in later years, the numbers began to drop steadily. Between 2006 and 2011, a total number of 892 students had enrolled in the programme.

In view of the importance of the DVAPFV programme towards developing skills of persons in the food processing industry, a programme evaluation was conducted by the Staff Training and Research Institute of Distance Education (STRIDE), IGNOU. The aim of the study was to examine the reasons for the low enrolment and to revise the programme accordingly so that a larger section of youth, especially from rural areas, could benefit from it. A survey design was adopted using research tools of questionnaire and interview schedule. Based upon the feedback result received from learners, academic counselors, programme study centres in-charges, experts, IGNOU’s Regional Centres, Divisional Heads and SOA faculty, the study made recommendations and suggestions. These findings were then used for strengthening of the programme and thus contribute to the growth of work force in the food processing industry.

Keywords: Food Processing, Low Enrolment, Value Added Products.
117. Technology Based Capacity Building of Respondents of U-DISE Data Capture Format across India: A Study

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India has one of the largest schooling systems in the world. As per the U-DISE 2015-16, there are total 15,22,346 schools imparting school education including all categories of schools from primary to secondary and higher secondary. Out of these, 14,49,078 are elementary schools. The massive scale of operations involves all resources such as teachers, students, support staff, infrastructure, materials and finances.

A baseline is always needed to check the functioning of any system and for timely monitoring of interventions made for its improvement. To create such a baseline for the education system in our country and to assess problem areas and points for potential improvement, the National University for Educational Planning and Administration (NUEPA) envisioned the Unified District Information System for Education (U-DISE). The U-DISE is aimed at keeping a track of the resources, their utilization, deployment and replenishment. Under U-DISE, every year data is collected from 1.5 million plus schools imparting education across the country. This data is collected at the local level with schools sending the data to the national level. Over the years, the U-DISE database has successfully provided data in a comprehensive format and has been used as a planning tool and as the basis for decision making by policy makers.

While technical support is of immense importance to achieve a nation-wide database, it is equally important that capacity building be undertaken to establish an informed and empowered workforce with appropriate know-how as well as motivation to improve the quality of the data. This workforce has to be also provided training whenever data capture formats are redesigned to accommodate new requirements in the school sector. Trainings also help to obliterates common errors and other issues during data entry.

The uniqueness of this programme has been the technology based interventions in capacity building to meet the massive training target number of data respondents while ensuring that no training transmission loss takes place. Over the years various technological interventions have been adopted for development of necessary understanding and skills amongst the large number of persons associated with the U-DISE data submission i.e. Block Resource Centre Coordinators, Cluster Resource Centre Coordinators and District MIS In-charges from all states and union territories of India.

This study examines technological interventions adopted during the past eight years (2009 to 2016) to develop necessary understanding and skills amongst respondents of U-DISE data capture format in submission of data in an accurate manner. The capability of technology as a tool of capacity development was analysed not only in terms of the primary data obtained from the feedback of the trained personnel but also secondary sources of data. The findings would help to further strengthen capacity building programmes for U-DISE.

Keywords: Capacity Building, Data Capture Format, Technology Based Intervention.

118. Skills for Enhancing Efficiency at Open and Distance Learning Institution – A Case Study from India

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Human resources empower an institution and is the cornerstone for its growth and development. The support services provided by the support staff in networking, collaboration and partnerships provide
avenues for mutual understanding and success of any institution. This paper explores the case study of Indira Gandhi National Open University, one of the premier institution in India and recognized as a mega university in the world. As per the data from the profile of Indira Gandhi National Open University in 2014, it has over 3 million students in India and other countries through 21 Schools of Studies and a network of 67 regional centres, around 2,667 learner support centres and headquarter in the capital of the nation. It serves the educational aspirations of learners in the varied age group, educational and occupational background, belonging to different caste, class, community and religion as well as varied geographical areas, thus providing inclusion to its students and striving to make India an inclusive society.

The aim of this paper is to explore various roles and responsibilities of the support staff working as private secretary in the university. This research is based on a study of the perception of skills perceived necessary for enhancing efficiency at workplace by the support staff working as private secretary in the university. This paper discerns the related factors deemed necessary to improve the efficacy of an employee at the workplace. The study helps in understanding the importance placed to human values and communication in dealing with official matters by the employees holding an important position in the university as private secretary. The paper ends with some valuable suggestions and recommendations.

**Keywords:** Human Resources, Support Staff, Perception, Efficacy.

**119. Skills for Success in Open and Distance Learning – The Learners’ Perspective**

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Human resource development is the major concern for both the developed and developing nations and more so for the developing nation like ours. Today, India is aiming to empower its youth with skills relevant for inclusive and sustainable livelihoods. Considering the fact that growth of a nation lies in the hands of youth and accomplishments of the youth leads to development of a strong nation. ‘Make in India’ and ‘Skilled India’ are few of the major projects aiming to empower the youth for success and sustainable growth. The open and distance education provides avenues for such empowerment by providing flexibility and openness to its learners. This paper examines the skills needed for success in today’s competitive world. The paper dwells into the learners/students perspective regarding the skills deemed necessary for the success in open and distance learning. This paper discusses at length the skills deemed necessary for the success in open and distance learning. The paper investigates the factors influencing the students learning. This study helps in filling the gaps between perception and real factors responsible for success of students in open and distance learning. The paper concludes by recommendations for enhancing skills for promoting completion of a programme of study under open and distance learning mode.

**Keywords:** Open and Distance Learning, Learners, Perception, Resources.
120. Skill Training of In-Service Nurses: Challenges and Future Interventions

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Qualified, competent skilled nurses are required to provide quality care. Quality of pre-services and in-service training of nurse’s focused on enhancing knowledge and provides limited opportunities for proficiency in skills and certain procedures like intravenous/cannula insertion, collecting blood sample are not carried out by nurses in India. Indian Nursing Council does not allow nurses to perform these procedures independently. But today employer expects nurses to perform these procedures which were earlier carried out by medical officers.

To assess expected skill demanded by health department and challenges health department face to meet skill needs of in-service nurses in Delhi and assessment of needs of Delhi health department and their expectation from in-service nurses working in hospitals was done by discussion with administrators. Assessment of curriculum was carried out to assess skills covered under practical components in various subjects. Discussion with nursing leaders and job responsibilities were analysed further actual working of nurses was analysed. Secondary review on challenges faced by employers was done. Skill lab guidelines, Ministry of Health and Family Welfare, GOI were analyse for baseline. Few skills were identified by the health department on priority basis; procedure guidelines and checklist prepared including equipment required for procedures; trainers were identified; monitoring formats designed for quality assurance. 60 nurses were selected. Common theory session were organised, then group was divided into 4 sub-groups for skill training.

Delhi Health Department expected nurses to perform basic skills including intravenous fluids, cannula insertion, collecting blood samples, cardio-respiratory resuscitation. As all nurses were qualified with diploma or degree from recognised institutions and registered but 40% with Delhi Nursing Council. 90% nurses had work experience in private sector before joining the government service; were working in government hospitals since 1-3 years; 50% had performed intravenous/cannula insertion and collected blood samples in private sector and 100% performed basic procedures. 80% need in-service training. Quality of training was questionable.

The study helped in identifying methodology of training trainers and nurses using various methods like theory sessions through online or recorded sessions or through web; practical sessions through demonstration, re-review of steps through manual and video and Hand On strategy was outlined for monitoring training for quality assurance.

Keywords: Skill Training, Nurses, Procedures, Intravenous.

121. Skill Development for Students in the Humanities: Possibilities Through ODL

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For several decades now, students entering higher education institutions in India, have been showing a definite preference for Science/Technology/Management programmes of study as compared to Humanities. A major factor responsible for such preferences is the general perception that an education in the Humanities does not equip the student with the skill sets essential to enter the job force. At a time when education is increasingly being seen primarily as an avenue to employment, rather than a process that leads to the holistic development of the individual, this is a serious drawback indeed.
The Choice Based Credit System introduced by the UGC has a provision for skill development through Skill Enhancement courses and Ability Enhancement courses. This paper explores the possibilities of using this provision to offer ODL courses that can enhance the employment potential of students in the Humanities. Many Open Universities in India, including IGNOU already offer Application Oriented Courses as part of the bachelors degree programme. This paper considers the possibilities of adopting such courses and designing new ones to be offered through the CBCS for students in Humanities from both distance education institutions and conventional universities. Such courses could ensure that undergraduate students in Humanities, acquire not only the intellectual abilities to engage with issues around them, but also possess employable skills that could make them economically productive members of the 21st century knowledge economy.

Keywords: Holistic Development, Choice Based Credit System, Employable Skills.

122. Role of ODeL in Empowering Differently Abled Persons in India: Prospects and Challenges

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The advancement of technology in 21st century, knowledge is no more confined in to the classroom. A transformation from traditional classroom teaching to ICT supported virtual class has been observed in entire education system across the world and has made the education system more inclusive for marginalized group in general and for children with special needs in particular. Infact, in present era of LPG (Liberalization, Privatization and Globalization), educating a child with special needs is very critical as it reduces their degree of dependency on family and society, reduces the cost of rehabilitation services and in turn contribute in valorizing their social roles. ICT supported e-Learning has a potential of empowering differently abled persons by equipping them with various vocational skills.

The present paper discusses the possible role that ODeL can play in Social Role Valorization of differently-abled persons (Divyangjan) in India through skill development. Several initiatives like NPTEL, SWAYAM etc. has been taken by Govt. of India to promote ODeL in India, success of which depends upon their inclusiveness. The paper also discusses challenges ahead in empowering differently abled persons in India through ODeL.

Keywords : Information and Communication Technology, Social Role Valorization, Differently Abled Persons.

123. Role of eBook towards Innovative and Effective ODL Learning in Bangladesh

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eBook has been extensively adopted in open and distance learning (ODL) institutions because of its wonderful characteristics of instantaneously deliverable capacity and easily usable in any reading device. In 2013, Bangladesh Open University (BOU) launched a website (http://www.ebookbou.edu.bd/) on eBook for facilitating web-learning and the university made approximately all modules of its major academic programs available for the learners from secondary school certificate programs to graduate programs. This study exposed how effective is the eBook for contributing towards the learning and what is the status of innovative learning through eBook in Bangladesh and the research was really appropriate as no research initiative was taken to understand the efficacy and innovativeness of eBooks since the
commencement of the eBook website from the university. To perform a comprehensive analysis, this study included randomly 59 learners from different academic programs of the university and the respondents were served questionnaires and they were interviewed individually and in groups to investigate how they used or use the eBook facility for learning. The respondents told their comments, success, ICT difficulties and elevated ideas to deal with innovative learning. For ODL, web-based learning facilities are inevitable to ensure quality learning and because of technological advancement, innovation for learning is coming each day while the learners need to have the aptitude for development of themselves and besides, institutions must upgrade and adopt new innovative approaches to be user-friendly with the learners. This paper has explored the experience of learners and narrated to share with ODL practitioners, ICT leaders, educators and policy makers.

**Keywords:** ebook, ICT, web Learning, ODL.

### 124. Teaching Communication and Presentation Skills at Undergraduate Level through Online Mode: A Study of Journalism Students in New Delhi

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Online learning is a primary solution for nations who need to be prepared for a swiftly growing economy. India is a young country with a teeming youth population which necessitates the inculcation of skills to generate employability. Skill development is also the national mandate presently. Skill development through online learning was apparently a pragmatic choice. The challenges of online learning are similar to those of distance education. Technology has helped it become more effective. Online learning is in the process of integrating with the education environment globally, especially with the higher education and training.

This paper discusses a course on Communication and Presentation skills designed and implemented on the first year students of Bachelors’ in Journalism and Mass Communication to inculcate professional communication skills in them. Analysis, Design, Development, Implementation and Evaluation (ADDIE) model was adopted for this experiment. The objectives of this research were to test the design and development of a programme on communication and presentation skills through short term intervention of one month module, to test the effectiveness of such a programme and its instructional design transacted online, to test the reactions of conventional mode journalism students to online learning and to study the gender differences in reaction to online learning.

The methodology included a descriptive survey followed by expert assessment of the course transacted once it was over. The universe comprised of all the BJMC students of Delhi. Delhi University and Guru Gobind Singh Indraprastha University, a State university of Delhi were found to be offering this programme at Bachelors’ level. GGSIP University was randomly picked which had 11 affiliated colleges offering this course. Two colleges were randomly selected. The total number of enrolments were 372.

The module on Communication and Presentation Skills was of two credits and was designed for 60 learner hours. The media/technology used for transacting the course included text, audio clips, role plays (both audio and video), video lectures, multi media power points, blogs, google groups and E-mails. Additional reading material and web resources were also given to add to the learning experience. Also assessment of the learners was made from time to time. Programme evaluation was done through two questionnaires – one to collect students’ feedback and the second was designed for experts to check pedagogic effectiveness. The findings were revealing.

**Keywords:** Online Learning, Instructional Design.
125. IGNOU’s Educational Intervention for the Imprisoned

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The Indira Gandhi National Open University (IGNOU), since the past decades, has been making conscious efforts to reach out to the unreached with its diverse, need-based and affordable Open and Distance learning (ODL) programmes and has been experimenting with various innovative ideas and methods to cater to the diverse needs of its prospective learners. The University, realizing its mandate to reach out to the unreached, ventured into educational intervention behind bars in its attempt to empower this marginalised section of the population. This intervention caters to the learning needs of both literate and semi-literate prisoners and is aimed at reformation of undertrials as well as convicted prisoners; all expenditure under this initiative being borne by the University. IGNOU’s approach of imparting education to the imprisoned, falls in line with its vision and mission and with the objectives of democratizing higher education; which is the need of time.

This paper details the operationalization aspects and status of this initiative of IGNOU. The paper tries to identify the driving forces behind this noble initiative of the University while discussing on the impact of educational intervention of the imprisoned. The paper also tries to identify the special/unique skills needed by educators who act as counsellors for the jail inmates. As rightly said by Skorton and Altschuler, 2013; “Education offers a humane and effective alternative to the discipline and punish approach, that all too often breeds only hopelessness and recidivism”.

Keywords: Reformation of Undertrials, Democratizing Higher Education.

126. Web Based Technology for Student Support Services in ODL System: Experiments of IGNOU Regional Centre, Jaipur

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Web based technology emerged as a powerful means of learning in today’s world. It is not just limited to classroom process. It has extended beyond the four walls of classroom to facilitate and promote student support services in the ODL system. Management of learning efficiency depends upon the quality of student support services. Quality of student support services can be made meaningful with adaptation of web based technology. Utilization of the potential capabilities and strength of technology in ODL system is the real need of the hour. Technology mediated student support system has multiplier effort for providing better access, quality and equality. It is a challenge to make it learner friendly and a means to spread digital literacy among all learners. IGNOU has emerged as a leader in the field of ODL system in terms of bringing innovations in designing and developing technology enabled learning environment. We have a long way to go in terms of effective and efficient implementation of web based technology for having an appropriate LMS in ODL system. This demands capacity building of all functionaries to adapt to new technology. IGNOU Regional Centre Jaipur took a major initiative to experiment utilization of web based technology to bring a revolution in LMS by effective and efficient integration of technology.

The following specific technology mediated features are integrated with student support services of Jaipur Regional Centre to address the issues of access, equity and quality of implementation of programmes through ODL mode and bringing efficiency in routine office management system of Regional Centre and LSCs in the region: 1) Online Quick Contact: Asynchronous Learners Query Management System 2) Online Confirmation of Admission and Re-registration, 3) Online Study Material Tracking System, 4) Online Monthly Monitoring Report: A mechanism of academic monitoring and monitoring of
administrative and financial activities of LSCs, and 5) Online Processing of Bills and Vouchers of Finance and Accounts Section of LSCs: A mechanism to bring accuracy and transparency in financial management.

The present paper is an attempt to explain the potentials of web based experiments of Jaipur Regional Centre to facilitate LMS in one hand and developing transparency in academic administration and management on the other hand. It would help us to think of bringing a systemic revolution in ODL system in our country.

**Keywords:** Student Support Services, Learning Management System, Information and Communication Technologies, Web based Technologies.

**127. MPS Programme: Competitive Oriented**

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The success of any open and distance-learning programme depends on how well it is designed, executed and evaluated. Evaluation of a programme not only demonstrates its strengths but also points out the inherent shortcomings of the programme. The Masters Degree in Political Science programme of IGNOU is known to be competition oriented and useful in building careers of the learners. The MPS programme was introduced in 2004 and it was decided to evaluate as per the practice of the University (IGNOU) to find out whether it is meeting its aims and objectives, does it analyse the potentiality of the programme and suggests the areas which need revision and development of curriculum or course content. This programme provides the learners, freedom to shape an individual programme of study to meet their personal interest and career goals. The learner can specialise in the areas of Political Theory, International Relations, Comparative Politics and Area Studies and Indian Politics.

An evaluation and assessment study of the Programme was undertaken and successfully completed. This study was conducted through face to face contact with learners, academic counsellors, and other stake holders. During the survey, 2000 questionnaires were used for the learners and 500 questionnaires for academic counsellors and feedback received was analyzed. The information gathered through the questionnaire included, gender, area, category, quality of print/course material, structure/language used in the course materials, usefulness of Project Dissertation, other Readings, Counselling, Assignments, audio-video lessons, teleconference, Interactive Radio Counselling (IRC), Gyan Darshan, Library and problems faced by the learners. The enrolment data of ten years i.e., from 2004-2014, obtained from SRD, was taken into consideration for the study.

The present paper aims to analyse the quality of the programme, its usefulness in career building and in facing competitive exams and the various problems faced by the Open and Distance Learners of MPS, the need for monitoring the implementation and utility of the programme with the changing needs of the learners. Further, the study also aims to assess and analyse as to whether IGNOU has been successful in achieving its motto to reach out to the marginalized sections of the society with this programme.

**Keywords:** Programme Evaluation, Quality, Open and Distance Learning

**128. Handling of RTI Act: Issues and Challenges**

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The Indian Judiciary held that “the right to know”, which is derived from the concept of freedom of speech, though not absolute, is a factor which should make one wary, when secrecy is claimed for transactions which can, at any rate, have no repercussion on public security. The people of this country
have a right to know every public act, everything that is done in a public way, by their public functionaries." — State of U.P. v. Raj Narain, AIR 1975 SC 865.

The legislative intent of the RTI Act 2005 is to make our society more open and public authorities more accountable. The Act begins with the citizen's right to obtain information and ends with the information being made available to him or his request being justly rejected on the grounds recognised by the Act. The provisions of the Act have to be read in consonance and in harmony with its objects and reasons given in the Act which have to be given widest meaning in order to ensure that unscrupulous persons do not get benefits of concealment of their illegal activities or illegal acts by being exempted under the Act and are able to hide nothing from the public. The working of any such organisation or institution of any private body owned or under control of public authority shall be amenable to the Right to Information Act. It has been observed that Public Information Officers (PIOs) and Appellate Authorities are sometimes facing difficulties in interpretation of the provisions of the Act; and supply/denial/disposal of RTI applications. It has also been observed that seekers of information through RTI applications are not satisfied with the information supplied by the PIOs leading to file appeals against them up to Central Information Commission (CIC) and sometimes CIC imposing a penalty against denial or supply of fictitious and concocted information.

The broad objective of this paper is to guide PIOs and Appellate Authorities of IGNOU to overcome inconvenience in the interpretation of the provisions of the Act and disposal of RTI applications without violation of the principles of Natural Justice.

Keywords: Right to Information Act, Public Information Officers, Appellate Authorities, Principles of Natural Justice.

129. Integration of Multiple Media Components to enhance Skill Development

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In today's world, the multiple media components such as Print, Radio, Television, etc. are being used at secondary and tertiary levels to disseminate knowledge amongst learners. Though the media is influencing the teachers and the taught in improving their skills, available effective technological tools need to be integrated for bridging the gaps between teachers and the taught. As a part of the process of integration of these media components, a platform named “Study Webs of Active Learning for Young Aspiring Minds (SWAYAM)” was established by the Ministry of Human Resource Development, Government of India. The main objective of SWAYAM is to achieve the three cardinal principles of Access, Equity and Quality. SWAYAM seeks to bridge the digital divide for students who have not been acquainted with the digital revolution and have not been able to join the mainstream of education system.

The courses hosted on SWAYAM are being developed in 4 quadrants viz. (1) video lecture, (2) specially prepared reading material that can be downloaded/printed, (3) self-assessment tests through tests and quizzes, and (4) an online discussion forum for clearing the doubts. Presently, the programmes being developed for SWAYAM comprise only with asynchronous video interactivity. Considering the changes in student behaviour, attitude and interest (use of Mobile, Internet, and Tablets etc.), restructuring of instructional design and delivery methodology of ODeL material is a big challenge. This integration encourages the use of all the available strategies which motivate the learner for increase in stimulated learning. This is done through developing programmes on the Virtual Studio which creates a three dimensional environment with synchronous interactivity, augmented reality created by using HD technology.

The objective of this paper is to Integrate Multiple Media into SWAYAM — A Platform to offer Massive
Online Open Courses (MOOCs). The major focus will be on the usage of Virtual Studio for MOOCs. Access to Higher Education can be widened by cutting down the cost by using the latest technologies. By integrating various ICT tools with the virtual studio with high definition cameras and recording equipment, it is possible to develop high quality content for MOOCs that will use Internet and Mobile for delivery. MOOCs thus developed will have major impact on both learners and teachers in ODeL. The transmission quality of MOOCs on the SWAYAM will be highly interactive due to usage of Multiple Media. This kind of integration of multiple media really helps in enriching the teaching-learning process particularly in skill development programmes.

**Keywords:** MOOCs, Virtual Studio, SWAYAM, Interactivity

**130. Study of Problem Solving Techniques for Development of Curricula for Inculcating Employability Skills through Distance Mode**

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Advancements in computational sciences, in particular those in Artificial Intelligence, have led to seeing ‘problem solving’ processes as a science and art. For difficult problems, algorithms can require enormous computational resources. Way back in 1945 G. Polya had come up with his book ‘How to solve it’. In this book he had discussed the anatomy of problems and various approaches to problem solving. The nature of problems may be diverse, yet certain underlying principles unifying all instances of problems and problem solving may be derived. Problem solving in a variety of areas like conflict resolution, education and management can be discussed in formal curricula to develop systematic approach to problem solving as a skill and art. Our problem may be modest, but if it challenges our curiosity and brings into play our inventive faculties, we may experience the tension and enjoy the triumph of discovery.

Problems of all sorts have been essential part of human being since prehistory to the present times. Problems may be in the domains of human relations, natural sciences, social sciences, or any other sphere of activities. All the problems have a certain common features. There is a set of ‘given’ data like known variables or an initial point which may be unsatisfactory and need improvements. Second there is a ‘desired state’ or unknown variables or final point which problem solver wishes to achieve. Third there is a protocol or conditions within which the problem is expected to be solved. There may be a unique solution to the problem or multiple solutions and problem solver may like to find the optimal or best solution among them. Thus problem-solving may be studied in its abstract domain-free form and certain general principles may be derived. Specific application of the generic techniques and principles to the diverse domain areas would strengthen the understanding of the learner and make the curricula interesting, inspiring and arouse his curiosity further. Study of problem solving and systematic methods of problem-solving should lead the student to become a productive, disciplined, effective, efficient and confident individual. Such individual would not only contribute to the workforce of the society in extremely valuable way, but also get rewarded in enhancing his livelihood retaining potentials.

This paper tries to narrate various issues in problem solving technique and development of curricula. Instead of drilling students in routine operations and hamper their intellectual development, new methods which instil the curiosity of students by setting problems proportionate to their knowledge may be developed. Various ways to achieve this challenge, though methods and philosophy of distance education mode are to be derived and discussed.

**Keywords:** Artificial Intelligence, Problem Solving, Employability Skill.
131. Developing Creativity as an Employability Skill through ODL

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India, the second largest populous country in the world, faces twin problem of unemployment and poverty. The education system of India is very strong with 700 universities with more than 35000 colleges accommodating more than 20 million students. The industrial expansion in the next five years will create 75 to 80 million jobs and 75 to 90% of all additional employment required some vocational training. The current capacity of the vocational training institutions imparting in the country is 3.1 million per annum against countries target of skilling 500 million people in 2022. According to NSDC, the current education system is not responsive to the skill demands of the existing and feature industry leading to a supply demand gap on various counts. This point has been demonstrated in a recent IBM survey of more than 1,500 CEO’s reports that creativity is the single most important leadership competency for enterprises facing the complexity of global commerce today.

Employability skills can be defined as those potentials, skills and competencies which lead to better prospects of getting employed and retaining the employment. It is essential that employability skills be identified and systematically developed through education and training. Creativity has been one skill which has long been ignored or undermined in education. Inculcating skills which lead to a person developing creative products, which includes creative solution to problems, designs and products is desirable as may be perceived by employees as well as employers. Thus creativity may be seen as employability skills for jobs involving policy making, development of innovative products and similar such opportunities. In the literature there are references which show that creativity can be developed through systematic interventions. This paper shows the systematic programmes and courses being designed which would strive to fill up the gap in imparting education through distance mode leading to development of creativity in the learners.

Keywords: Open and Distance Learning, Creativity, Employability Skills.

132. Towards a Self Reliant Tomorrow: Empowering Refugees through Professional Education — A Case Study of the DAFI Programme

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Education is accepted as a human right and nations across the globe have come together to pledge their commitment towards education for all. Education is seen as the big enabler for building lives thereby leading to the overall development of a nation. The aim of the 2030 Agenda for Sustainable Development to end poverty and bring about prosperity is echoed through Goal 4 which calls for inclusive, quality education and lifelong learning and Goal 8 which promotes inclusive, sustainable economic growth and decent work. This close relationship between education and employment assumes great significance when viewed in the context of refugees.

The 1951 Convention Relating to the Status of Refugees defines ‘refugee’ as a person who owing to well founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside his/her country of origin and is unable, or owing to such fear, is unwilling to avail himself/herself of the protection of his/her country of origin. Currently there are 21.3 million refugees across the world, of which around 200,000 are in India. This includes refugees directly assisted by the Government of India — Tibetans/Sri Lankans, and around 25,000 registered with UNHCR India, largely from Afghanistan and Myanmar.
In order to ensure that refugees are able to avail university education, including training that is technical, vocational, and professional and/or para professional that leads to qualification, UNHCR has been implementing the DAFI programme (Albert Einstein German Academic Refugee Initiative). The DAFI programme, set up in 1992 through the Government of Germany, provides scholarships through UNHCR to enable at least a few qualified refugees to study in universities and become self-reliant through gainful employment.

The open and distance learning system with its inherent flexibilities and wide choices of programmes has been able to successfully provide an opportunity for the fulfilment of educational aspirations of refugees. While many refugees pursue schooling at the National Institute of Open Schooling (NIOS), others enrol for higher and professional education programmes at Indira Gandhi National Open University (IGNOU) and campus of open learning, University of Delhi.

This paper examines the learner’s profile of refugees enrolled under the DAFI programme along with their educational aspirations through the ODL system. The sample for the study includes learners, teachers, counsellors and programme coordinators. Secondary data available from student’s records has been examined along with focus group discussions with refugee learners. It is seen that the acquisition of professional qualifications by DAFI scholars and their consequent ability to find work makes them role models of youth in their community. By being a qualified human resource, DAFI graduates are able to secure employment and thus contribute to the society either in the country of asylum or on return to the country of origin.

**Keywords:** Education for All, Human Right, Technical, Vocational, Professional Programmes, Employment.

### 133. Ensuring Quality in Open and Distance Learning for Women Empowerment in Bangladesh

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The issue of women empowerment attracts global attention, which is especially true since after the 4th UN World Conference on Women held in Beijing in 1995. Access to quality education has been at the root of women empowerment. But the increasing cost of education coupled with widespread poverty has narrowed down the opportunity for their access to education. Again achieving quality in education has increasingly become crucial in strategic improvement plans of developing countries, which is also viewed as an influential factor in implementing plans for empowering them. This paper explores the role of ODL as a tool for women empowerment in Bangladesh. It shows ODL as a tool for promoting gender equality and empowering the women, a strategy for achieving the goal number two of the Millennium Development Goals (MDGs).

The paper will also focus on improving the competitiveness through enhancing organizational capacity by adopting the appropriate tools for its survival and growth.

**Keywords:** Quality, ODL, Women, Empowerment, MDGs.
An Analytical Study of Skill Development through Open Distance Learning Programmes: A Case of DDE, Dibrugarh University, Assam

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The Directorate of Open and Distance Learning, Dibrugarh University (DDE, DU) started its mission i.e. to take higher education to the doorsteps of the learners with Post Graduate Programmes since 2001 through its 36 contact centres. Bachelor degree programmes have been launched from the academic session 2011-2012. The DDU, DU has so far successfully sustained its mission and established 170 study centres.

The main objectives of this paper are to provide an overview of the academic programmes keeping in view the knowledge and skill components; to examine the mode of delivery of the programmes; to analyse the performance of the learners with special reference to skill developments: and to provide suggestions to make the delivery of the programmes more effective keeping in view the knowledge and skill components.

Two academic programmes will be considered for this study viz., Bachelor of Computer Application (BCA) and Post Graduate Diploma in Computer Application (PGDCA). One hundred twenty learners who have completed the two programmes have been selected randomly for this study. A questionnaire has been developed. The content validity has been done by 6 experts. The data has been collected through mail and face-to-face situation.

The following analysis was performed: background information, analysis of contents of the academic programmes — both knowledge and skill components, analysis of delivery of the programmes, analysis of responses related to various elements of the programmes — contents of the study materials, projects and practical/laboratory work, and analysis of performance in theory, projects and practical/laboratory components.

Analysis of the above revealed the satisfaction level of the learners in two different programmes, the success rate, nature of knowledge and skill development and utilization of the skill for better performance and employment. At the end, suggestions have been provided to make ODL more effective for skill oriented programmes.

Keywords: Employable skill development, practical/laboratory components, satisfaction level of distance learners.

Supporting Distance Learners though Mobile Apps: A Case of BOU

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Bangladesh Open University (BOU) develops a series of apps to deliver course materials to learners’ smartphones and tablet devices, starting next year. Currently, BOU Apps is allowing learners to access their main information through their handheld devices along with the audio and visual content the BOU produces to support studies. It is being designed from the ground-up for touch interfaces, and offers high quality visual images rather than lists and the learners are more interested to complete their learning. Mobile apps provide learners with effective learning experiences. The apps are made available across Internet and learners can download this in their smart phones. Recently, it is found that BOU learners of the traditional ODL programmes are using mobile device in the tutorial centers rather than print (hard copy of SLMs). Currently BOU delivers textbooks from study center and/or RCs/SRC and radio-TV
broadcasts. The apps are able to streamline all these different course resources into a single interface. This study investigates that apps can automatically render a single input file to multiple formats (print, web and ebook) — giving it the ability to repurpose existing study materials for new delivery mechanisms such as mobile. A total of 206 students took part in this study through questionnaire used Likert scales to investigate attitudes and perceptions towards BOU apps and provided open ended responses for additional comment on the apps they used. The study finds that future iterations at BOU will be through BOU Apps and it will look to create “new learning products” specifically designed for mobile and tablet devices. Our results suggest that students need technical, logistical, and pedagogical support for integrating mobile devices and apps. BOU’s future plan should be to continuously update the faculty support resources and implement them on a larger scale.

**Keywords:** Learning Experiences, Mobile Device, New Learning Products.

### 136. A Study on Learning Analytics and Engagement Analytics of an Online Programme

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Rapid growth of technology enabled teaching learning processes in education system depends on learning management system (LMS), not only for content management but also for learning engagement. LMS plays vital role in technology infrastructure for teaching learning environment. Learning Analytics (LA) is emerging field in the technology enabled teaching learning. LA measures about learners and their learning in online environment and aim to improve their learning outcome through analysing the learning data in the LMS. Measuring learner’s engagement in an online programme is complex as learner’s interaction with the learning management system at any time and any pace. Indira Gandhi National Open University offered Post Graduate Diploma in e-Learning, one of the programmes delivered through Moodle LMS platform. Around 145 learners registered for this programme and used Moodle platform for their learning activities. The major focus of this paper is to study the various learning analytics and engagement tools in learning management system and analysing the learner’s engagement by tracking various tools. LA facilitates retention of learners in online environment which was very challenging for teachers. Engagement tools help to measure in learner experience, assessment marks and participation interaction which lead to predict learners at risk and build better relation between learners and teacher. The findings suggest the learner dropout in advance and learners’ participation and performance on continuous assessment.

**Keywords:** Learning Analytics, Engagement tools, Learning Management System

### 137. The Necessity of Skilling Youth for Nation Building in India

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Skills and knowledge are the vital driving thrusts for educational, economic and social development of any country. Those countries which are having higher levels of skills tune more efficiently towards the challenges and opportunities in the career markets. Today, India and most of the Asian countries require trained and skilled workers. For India, skill development is analytical from both socio-economic and demographic point of view. The country, on the other hand, has a giant confront ahead as it is anticipated that only 4.69% of the total workforce has undergone prescribed skill training when contrasted with 68% in UK, 75% in Germany, 52% in USA, 80% in Japan and 96% in South Korea. Therefore, India needs to equip its workers with employable skills and knowledge so that they can contribute substantively to the economic growth of the country. Our Hon’ble Prime Minister, Shri Narendra Modi,
in his Independence Day (2014) speech also stressed that, “Today our country needs skilled work force. If we have to promote the development of our country then our Mission has to be skill development and ‘skilled India’. Millions and Millions of Indian Youth should acquire the skills which could contribute towards making India a modern country.”

Therefore, this paper attempts to learn the present skill capability, challenges for the skill development initiatives in the country with its solutions. The study also finds that both the Government and its associate agencies have undertaken various initiatives to implement the skill development scheme in the economy, but still faces a number of unanswered challenges that require abrupt consideration. Hence, the initiatives of the skill development started by government should focus on such obstacles and build up the programs consequently to resolve these hurdles for the absolute victory of these skill development initiatives. The findings of the paper also suggest that government, private institutions and other capable agencies should focus on institution-based skill development program through colleges, polytechnics, ITIs, vocational training centres, training centres for self-employment, ventures for entrepreneurialship, expanding the outreach of e-Learning and distance learning for the youth to develop their skills to become self dependent, self reliant and self confident.

**Keywords:** Skill Development, Social Development, Vocational Training, Self reliant and self confident.

### 138. Mapping the Trajectory of Life Long Learning : ODE and Skill Enhancement

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In present scenario, lifelong learning has become synonymous with preparation for the world of work, skill enhancement and employability and development of the individual in such a way that his/her development emerges in a holistic and expanded manner. Although schools, the formal institution of education, are seen as the microcosms of the world, the emerging significance of lifelong learning is unquestioned in the society where a large number of people are illiterate and lack professional expertise. Open and Distance Education has been appreciated due to its special features such as learner centered approach, convenient entry, multi media technique of delivery, transcending the barrier of space and time, flexibility, feasibility, self assessment modules / course material, assignment and academic counseling, personalized support, adapting to learners’ diversity and maintaining quality standards.

Lifelong learning has the potential to equip individual to gain insight into the arena of skills and culminates in individual transformation and social change. Needless to say, the credibility and success of open and distance learning system depends on a number of factors such as employment oriented and learner friendly curricula, self-learning materials, adequate and effective counseling sessions, timely and adequate learners support services. The paper throws light on the emerging need of lifelong learning in the context of skill enhancement. The paper attempts to present a brief discussion of why we need lifelong learning in contemporary scenario, what are the challenges and how to meet the challenges in a constructive manner.

**Keywords:** Lifelong learning, Open and Distance Education, Skill enhancement, Personalized support.
139. Distance Learning and Skill Development — A Study on the Learners of Distance Mode with Special Reference to KKHSOU, Assam

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The outcomes or the products of distance education have always been questioned. For most of the common masses distance education only helps to get the degrees and certificates and not to acquire the skills. And when it comes to teacher education the notion becomes stronger. So it was felt to undertake a study on the teachers who have completed a course in the distance mode and some teachers who are not a part of distance mode of education. For the present study total 300 teachers as sample were selected using purposive sampling method from Kamrup, Kokrajhar and Bongaigaon districts of Assam. Among them 150 teachers completed the D.El.Ed course under KKHSOU and 150 teachers who are yet to enroll in the course. Students’ feedback was also taken for the study. While analyzing the data gender issues and rural-urban inhibitions have also been kept in mind along with other dimensions which is necessary for effective teaching. And the findings of the study have re-assured the utility of distance education and its contribution in skill development.

Keywords: Distance Education, Teachers, D.EL.ED, Skills.

140. Open & Distance Education and Skill Development in India: Situational Analysis of Human Capital vis-à-vis Demographic Dividends through the Lens of Gandhiji’s Buniyadi Shiksha

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Global sustenance of mankind is directly linked to evolution of a knowledge society. Education has been perceived as a major prerequisite of development and evolution of a knowledge society.

Most experts have viewed education as a single important solution for the settlement of several socio-economic problems, viz. development, poverty, inequality, unemployment which in turn are related to entire gamut of other development goals. Education – at various levels formal or non-formal – has also been perceived as a major tool for economic changes.

It is viewed that India, with a projected young population of over 700 million by 2022, is on the doorsteps of reaping the demographic dividend in next two decades. At the same time, it poses a challenge for educational planners and policy makers for generating assets out of such population. Generation of assets out of human capital envisages a need for a massive and robust network of skill development institutions in the country. Distance education systems in general and Universities in specific, with their innate strengths and weakness of providing the quality education to each and every learner and stakeholder, can become a major tool for a massive social transformation of building a skill based society.

Further it is viewed that Information & Communication Technologies, with their integral qualities of reaching the remote and rural masses, can open up new channels for skill development of the marginalized communities. Unless, these communities are the benefiting groups, the gap between them and the mainstream societies may lead to, further opening up of an increased tendency of the communities living on the edge.

The present study focuses not just on the validity of the argument, but to the degree on which the premise of quality of open & distance education strategies are applicable to foster skill development of people. It
is an attempt to identify, analyze and assess the dynamics and possible implications between the present state of skilling processes through the lens of Gandhiji’s Buniyadi Shiksha and its perceived role in fostering the national development in the milieu of global progress.

Keywords:

141. Social Inclusion in a Globalised Higher Education Environment: Issues and Challenges of Equitable Access in Indian Distance Education

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There has been a massive and sometimes staggering growth in Higher Education participation in the last 50 years across the globe which included the most developing nations. The rise of distance education is a remarkable phenomenon as it emerged as a ray of hope and a viable alternative. Despite the encouraging sign in terms of numbers, demographic imbalances in the people continue to raise serious questions on the equitable access to women and socially marginalized groups. Indian nation is being looked as fastest developing market however its society suffers from substantial inequalities in education, employment, and income based on caste and ethnicity. Compensatory or positive discrimination policies reserve number of the seats in higher education particularly distance education is being looked at with suspicion. This paper seeks to explore Indian distance education scenario with a perspective of equitable access. This presenter would like to deal with the issues and challenges in the distance education framework keeping in view the availability of outreach and retention initiatives such as pre-admission counselling, remedial coaching and placement services. This paper is based on the study of the information available on the websites of the major distance education Universities such as IGNOU, BRAOU, TNOU and others and also discussions and feedback from the academics in the distance educational sector.

Keywords: Demographic imbalances, Positive discrimination, Equitable access.

142. भारत में उच्च शिक्षा की पहुँच – दूर शिक्षा के विशेष संदर्भ में

शंभू जोशी
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यह आलेख भारत में उच्च शिक्षा के वर्तमान परिदृश्य पर प्रकाश डालते हुए यह स्पष्ट करता है कि स्वतंत्रता पश्चात् उच्च शिक्षा के क्षेत्र में उल्लेखनीय वृद्धि के बावजूद भी इस क्षेत्र में काफी प्रगति किए जाने लोघे हैं। उच्च शिक्षा में पहुँच के परिप्रेक्ष्य में दूर शिक्षा की भूमिका बहुत महत्वपूर्ण हो जाती है। यह आलेख स्पष्ट करता है कि उच्च शिक्षा के संस्थानों में उल्लेखनीय वृद्धि के बावजूद भी उच्च शिक्षा आम जन तक नहीं पहुँच पाई है। दूर शिक्षा इस स्थिति में एक सशक्त इक्सट्रेंस है। दूर शिक्षा शिक्षा से संबंधित रहने वाले तबके के लिए समानीकरण द्वारा संचारित किया गया है। इस आलेख में दूर शिक्षा की वर्तमान परिस्थिति पर विचार करते हुए इसके समूह चुनौतियों पर विचार किया गया है।

मुख्य शब्द: उच्च शिक्षा, दूर शिक्षा, चुनौति तबके
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About STRIDE
The Staff Training and Research Institute of Distance Education (STRIDE) was started as the Division of Distance Education in 1986, soon after the establishment of IGNOU in 1985 to cater to the training needs of various functionaries of the Indira Gandhi National Open University (IGNOU). Later, in 1993, based on the proposal by the Commonwealth of Learning (COL), the Asian Development Bank (ADB) and the Ministry of Human Resource Development (MHRD), Government of India to set up a training and research institute of distance education in the South Asian Region, the Division of Distance Education of IGNOU was upgraded into Staff Training and Research Institute of Distance Education (STRIDE). STRIDE has been conducting training and research activities for IGNOU, State Open Universities (SOUs) and Distance Education Institutes in India as well as serving the distance education training research and capacity building needs of the Asian, African and the Caribbean Countries. More than 700 major training programmes have been conducted by STRIDE since 1985.

Programmes on Offer

M.Phil. and Ph.D. in Distance Education
In accordance with the University policy for M.Phil. and Ph.D. programmes, STRIDE offers M.Phil. and Ph.D. in Distance Education. The workload of 64 credits for M.Phil. and 96 credits for Ph.D. is essential where one credit is 30 hours of study and research. As such, both the programmes are modular in nature with exit option for M.Phil. or Ph.D. as the case may be.

M.A. in Distance Education, MA(DE)
The M.A. in Distance Education is an integrated programme of two years duration. This programme consists of 10 courses of 60 credits with each course being of six credits. A student can be awarded Post Graduate Diploma in Distance Education (PGDDE) on successful completion of five courses of first year, worth 30 credits and Master of Arts in Distance Education, MA(DE) after completion of five courses of second year worth 30 credits (Total 60 credits).

Research
STRIDE has been undertaking major research projects from time to time in areas of Course Design and Development, Student Retention and Dropout, Cost Effectiveness, Student Support Services, Students’ Perception of ICT, Student Satisfaction, Factors Related to Online Training, Media Analysis, OER, Programme Evaluation and so on.

Programme Evaluation
STRIDE undertakes programme evaluation to ensure quality and standards in all aspects of ODL. STRIDE provides support to schools of studies and others to conduct course and programme evaluation. A number of programme evaluation studies on programmes in health sciences, agriculture, continuing education, humanities and social sciences have been conducted by STRIDE recently.

Staff Training and Capacity Building
Besides offering long-term professional development programmes in distance education, STRIDE conducts short-term training programmes of various types, and for varieties of academic, technical/professional and non-academic staff of Indira Gandhi National Open University (IGNOU), State Open Universities (SOUs), dual-mode university, distance education institutes (DDIs) and other agencies/organizations in India and overseas. Every year training programmes ranging from 3 to 21 days on various aspects of open distance education are conducted.

The various types of training programmes include Induction and orientation programmes, specialized training (on specific areas), Refresher programmes on Distance Education and other disciplines (in collaboration with Schools of Studies), programmes for State open universities and distance education institutes.

The target for the training programmes is faculty, non-teaching staff, academic counselors, research and training associates (RTAs).
These programmes are offered at institutional, regional, national and international levels with the help of resource persons, training packages, teleconferencing and distance and online learning. The focus of these programmes is on the following functional areas such as:

- Curriculum design and development
- Instructional design and development of self-learning materials
- Course adaptation/transformation/revision
- Management of distance and open education
- Assessment and evaluation techniques
- Learners support and academic counseling
- Media, technology and ICTs in distance education
- Effective writing and communication skills
- Research and Development in distance education
- Programme evaluation
- e-Learning, Massive Open Online Courses (MOOCs)
- Computer Awareness and so on.

**Indian Journal of Open Learning (IJOL)**

STRIDE also publishes the *Indian Journal of Open Learning* (IJOL). This refereed/peer reviewed International Journal is being published by IGNOU since 1992 and is celebrating its Silver jubilee in 2017. The details of the Journal may be found at http://journal.ignouonline.ac.in/iojp/index.php/ijol/login

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