# WORKSHOP ON UPGRADATION OF THE VOCATIONAL COURSES OF KKHSOU TO NATIONAL SKILLS QUALIFICATION FRAMEWORK


***Organised by***

**Krishna Kanta Handiqui State Open University, Guwahati**

***in Collaboration with***

**Commonwealth Educational Media Centre for Asia, New Delhi**

***at***

**Hotel Rajdhani Regency, Guwahati, 2-4 December, 2014**

## Executive Summary

The Krishna Kanta Handiqui State Open University seeks to review, upgrade and implement the existing Vocational Programmes under the Guru Prasad Das School of Vocational Studies to the National Skill Qualifications Framework (NSQF). So, the University organized this workshop for the first time in collaboration with CEMCA from December 2-4, 2014. Total 30 faculties from different Polytechnics and ITIs participated in the workshop. The University recommended the invitation of three experts of NSDC from Electronics, Basic Automotive and Beauty and Wellness sectors. But only one expert from Electronics sector was present in the workshop. The expert explained the general idea, new frame work and objectives of the Electronic Sector Skills Council of India (ESSC), the job roles, the current and future market trends in his two day presentation. There are about 30 Sector Skill Councils (SSC). For all councils it is mandatory to take members from various industry associations and involve those to formulate different courses which are useful to the different industries.

Krishna Kanta Handiqui State Open University is running several short term vocational courses in various Polytechnics and ITIs which are conducted without following a standard syllabus module by the institutions. They are following their own way of instruction to develop the skills of their learners. In this workshop, a standard syllabus module of these short terms vocational courses are prepared by the participants of the workshop following the guidelines of SSC.

The immediate outcomes of this workshop are –

1. Six existing curricula of vocational certificate/ diploma courses of the electronic sector skill are being upgraded to NSQF in consultation with Electronic Sector Skill Council, National Skill Development Corporation, New Delhi. These courses will be offered by the University from ensuing academic session (August 2015) and the self-learning materials will be developed/ upgraded.
2. Eight short term (200 hrs) skill development curricula were designed by the participants aligning with the NSQF in electronics, IT, automotive and beauty & wellness sector. These short term courses will be offered by the selected ITIs and Polytechnics of Assam from 2015 and the University will bear all the training costs for all enrolled trainees as free course under University's social responsibility schemes.
3. A comprehensive report on the workshop incorporating the recommendations for skill development in the state.
4. The University will develop resource materials in print as well as multimedia form by end of 2015 for the short term skill development courses.

All the curricula upgraded and developed will be used as OER materials under CC-BY-SA license; hence any other institution of the country or beyond can adopt/ adapt the designed curricula for skill development.

## Contents

Executive Summary ..... 1

Contents ..... 2

Introduction..... 3

Objective of the workshop ..... 4

Inaugural Session..... 5

Speeches of Dignitaries ..... 5

Session Presentations..... 9

Recommendations from the workshop..... 20

Closing session.....21

Agenda of the workshop ..... 22

List of Participants ..... 25

News Coverage..... 27

## Introduction

Krishna Kanta Handiqui State Open University (KKHSOU) is the fourteenth State Open University (SOU) in the country and the only one in the whole of North-East. It was established in 2005 with a motto ***'Education Beyond Barriers'.*** The mission of the University is to provide opportunities of higher education through open and distance learning to all those who have been deprived of higher education and to develop Vocational skilled based courses to generate self-employment. The University offers the skill based vocational courses under the Guru Prasad Das, School of Vocational Studies. Guru Prasad Das was a great entrepreneur from Assam who had invented the vacuum brake for trains. The departments under this school are – Agricultural Sciences, Electronics and Instrumentation. In total 20 skilled based vocational courses have so far been developed by the University.

Skills and knowledge are the engines of economic growth and social development of any country. India is in transition to a knowledge based economy. This transition will require India to develop workers into knowledge workers who will be more flexible, analytical and adaptable and multi skilled. To do this, it needs flexible education and training system that will provide the foundation for learning. One of the sources of the skilled workforce is the vocational education and training system which plays a vital role in human resource development by creating skilled manpower, enhancing industrial productivity and improving the quality of life. It is important that Open and Distance Learning plays a great role to train such a huge number of populations of the country.

National Skills Qualifications Framework (NSQF) is a quality assurance framework which systematizes qualifications according to a series of levels of knowledge, skills and aptitude. Government of India has made it compulsory that all training programs should be implemented to NSQF by 2018. Keeping this in view, the Krishna Kanta Handiqui State Open University, Guwahati in collaboration with the Commonwealth Educational Media Centre for Asia (CEMCA), New Delhi organized this workshop on "Upgradation of the Vocational Courses of KKHSOU to National Skills Qualification Framework".

## Objective of the Workshop

The basic objectives of the workshop are –

- To upgrade existing Vocational Courses introduced by Krishna Kanta Handiqui State Open University to National Skills Qualification Framework.
- To develop curricula for short term vocational courses to be offered by the university.
- To prepare a standardized module for it.

**PARTICIPANTS**

There were total 30 participants from various technical institutes like ITIs and Polytechnics of the entire state of Assam from different sectors such as Electronics, Electrical, IT, Beauty and Wellness, Welding and Automobile. Out of 30 participants maximum number of 8 participants came from automotive sector.

*(List of participants and their designation and organization is attached in annexure -2)*

**WORKSHOP SCHEDULE**

The workshop schedule for the duration of 3 days is given in Annexure-1**.**

## Inaugural Session

The inaugural session started with the welcome speech delivered by Shri Rajat Baran Mahanta, Registrar, KKHSOU. Then the Chief Guest, Shri Pradyut Bordoloi, Hon'ble Minister of Education and Industry, Assam and the expert of the workshop Shri N. K Mohapatra CEO, Electronics Sector Skill Council, New Delhi were felicitated on behalf of the University. Next, Dr. Ankuran Dutta, Programme Officer, CEMCA, New Delhi explained the basic objective of the workshop and the role of CEMCA in the skill development sector. After that Professor Srinath Baruah, Vice Chancellor, KKHSOU shared the contribution of KKHSOU in skill development part to the state of Assam and the entire North East as a whole. Then Shri Pradyut Bordoloi, Hon'ble Minister of Education and Industry, Govt. of Assam started his inaugural address. At the end of the inaugural session, Shri Rajat Baran Mahanta, Registrar, KKHSOU offered the vote of thanks to all the dignitaries and the participants present in the workshop.

## Inaugural Session: Speech of the Dignitaries


Welcoming all the dignitaries and participants of the workshop **Shri Rajat Baran Mahanta, Registrar, KKHSOU** shared that for the first time K.K. Handiqui State Open University organized such a workshop for the development of the Vocational Programmes which the University has already conducted in different Polytechnic and ITIs. He expressed that the vocational courses of the University are not reviewed and updated as per the norms of the NSDC. To upgrade the existing vocational courses, three experts were invited from NSDC from the sectors Electronics, Basic Automotive and Beauty and Wellness. He shared that though the policy making decision to develop standardized programmes and

conducting the examinations are in the domain of the Central Government, the implementation part mainly depends on the State Government. He also thanked CEMCA for their support and collaboration for upgrading the skill development programmes


**Dr. Ankuran Dutta, Programme Officer, CEMCA, New Delhi** in his speech described the basic objective of the workshop and the role of CEMCA in the skill development sector. He also emphasized the importance of Open Educational Resources (OER) in the skill development area and suggested to adopt OER as a policy by the Government Organizations and Technical Vocational Education & Training Institutes (TVET) in the region. He appreciated that only two Open Universities namely KKHSOU and Vardhaman Mahaveer Open University, Kota in the entire country have the OER policy. He also pointed out that CEMCA had recommended the recently organized National Consultation on OER for Skill Development to develop a national level repository of OER on different levels and disciplines, particularly on the courses of skill development which are already available in different countries. He also formally informed the Hon'ble Chief Minister of Assam Sri Tarun Gogoi in a discussion of Assam with the President COL on September 27, 2014 in Guwahati regarding the COL's assistance in skilling Assam and mentioned that it is the first initiative taken on behalf of COL. After his speech, participants had the opportunity of watching a 5 minutes video clip on skill development initiatives of Ammachi Lab of Amrita University, Kerala.


**Professor Srinath Baruah, Vice Chancellor, KKHSOU** in his remarks shared that the University thought it to be more appropriate if the vocational curricula of KKHSOU that were developed are upgraded by the concerned sector skill councils of National Skill Development Corporation (NSDC). Keeping this in view, the workshop was organized and total 30 faculty members from various Technical Institutes like ITIs and Polytechnics were invited so that the local faculty members could have interactions with the experts from NSDC and finally it could help this University in reformulating the curricula relating to the Vocational Skill Development Programmes. Professor Baruah opined that the University had included certain courses such as Computer Application, Spoken English and Office Management compulsory particularly at the degree level so that the students who would pass out this programme of KKHSOU can have a skill over the students of the Conventional Institutes. He mentioned that with these skills the students would be benefitted in getting jobs not only in the Government sector but also in the private sector. He also narrated in his speech about the vision of the University. Skill development in the unemployed youths particularly who have completed their matriculation or higher secondary level is one of the objectives of the University which would be a great service to the state of Assam and the entire North East as a whole.

**Shri N.K Mohapatra, CEO, Electronics Sector Skill Council** in his speech explained to the participants the importance of vocational courses and how these courses could help in the development of skills among the learners. He also highlighted the importance of implementing the National Skills Qualification Framework (NSQF) in the country and Government of India has made it mandatory to this effect by 2018. In his speech he also stated that industries are very enthusiastic about this because they are more interested in outcome of this

training rather than input based training. He feels that people are probably not trained according to the industry acceptance. He also reported that by 2020, India will be having the highest youngest man power that could produce the work force in the entire world. He also assured that lots of good planning, good execution and good programs are going on at national level in capacity building and it will impact the North East.


**Shri Pradyut Bordoloi, Hon'ble Minister of Education and Industry, Govt. of Assam** in his inaugural speech emphasized the importance of the vocational courses for skill development, which in turn helps in the development of the industrial sector. He expressed that the Government of Assam, basically the industry department has taken the initiative to identify some need based vocational area which have lot of demands in the job market and to start multidisciplinary skill development training centre in each development block. At the moment 12 multidisciplinary skill development training centers were developed.

He appreciated that the Government of Assam also decided to start 12 model colleges in twelve educationally backward districts which are identified by MHRD to run multidisciplinary skill development programmes so that these model colleges would produce the learners capable to take up any vocation in this world and who can really go and create a niche for themselves. He wants the initiative from KKHSOU to help in this regard. He thanked CEMCA and KKHSOU for organizing such workshop for skill development in different sectors in Assam.

**Shri Rajat Baran Mahanta, Registrar, KKHSOU** offered the vote of thanks and expressed his sincere gratitude to all the dignitaries and the participants present in the workshop at the end of the inaugural session. He also thanked CEMCA for organizing such workshop in collaboration with KKHSOU for upgrading the vocational courses of KKHSOU.

## SESSION REPORT - Day 1

The workshop started with the introduction of each participant. The participants introduced themselves and told about their present working status. All the sessions of the workshop were conducted with discussion, demonstration and group activities about the upgradation of the vocational courses of KKHSOU.

After the inauguration session, the day one activity was started by a speech by **Prof. Aniruddha Deka, Senior Consultant,** Guru Prasad Das, School of Vocational Studies, KKHSOU on the initiatives made by the University in skill development. He mentioned how the University has formulated different vocational courses in different need-based areas and also having regional importance. Altogether 20 vocational coursed have so far developed by the University including the agricultural sciences.

After that, a presentation was made by Shri N. K. Mohapatra about Electronic Sector Skills Council of India (ESSCI) about their vision, mission and objective. He also presented the present status of ESSCI. He introduced about products/services and its job roles. Above all he gave an overview of electronic industry and electronic market in India.

In his presentation, he made every participant familiar with the popular 25 job roles.

They are given in the following table.

| Sl. No. | Sub-sector | QPs for which NOS is written | QP No. (ELE/Q) | Sector | NVQF L |
|---|---|---|---|---|---|
| 1 | Consumer Electronics | TV Repair Technician | ELE/Q3101 | Service | 4 |
| 2 | Consumer Electronics | Field Technician – Air Conditioner | ELE/Q3102 | Service | 4 |
| 3 | Consumer Electronics | Field Technician – Refrigerator | ELE/Q3105 | Service | 4 |
| 4 | Consumer Electronics | Field Technician – Washing Machine | ELE/Q3103 | Service | 4 |
| 5 | Consumer Electronics | Field Engineer – RACW | ELE/Q3105 | Service | 5 |
| 6 | Consumer Electronics | Assembly Operator - Television | ELE/Q3502 | Manufac turing | 4 |
| 7 | Consumer Electronics | Performance Tester - RACWO | ELE/Q3606 | Manufac turing | 4 |
| 8 | Communications Electronics | DTH Set-top-box Installer and Service Technician | ELE/Q8101 | Service | 4 |
| 9 | Communications | DAS Set-top-box Installer and | ELE/Q8102 | Service | 4 |

| | | | | | |
|---|---|---|---|---|---|
| | Electronics | Service Technician | | | |
| 10 | Communications Electronics | Smartphones Repair Technician | ELE/Q8104 | Service | 4 |
| 11 | IT Hardware | Installation Technician – Computing and Peripherals | ELE/Q4609 | Service | 3 |
| 12 | IT Hardware | Field Technician – Computing and Peripherals | ELE/Q4601 | Service | 4 |
| 13 | IT Hardware | Field Technician – Networking and Storage | ELE/Q4606 | Service | 4 |
| 14 | IT Hardware | CCTV Installation technician | ELE/Q4605 | Service | 4 |
| 15 | IT Hardware | Service Engineer | ELE/Q4607 | Service | 5 |
| 16 | Industrial Electronics | Field Technician – UPS and Inverter | ELE/Q7201 | Service | 4 |
| 17 | Solar Electronics | Solar Panel Installation Technician | ELE/Q5901 | Service | 4 |
| 18 | Medical Electronics | Installation and Service Engineer | ELE/Q8001 | Service | 4 |
| 19 | PCB Manufacturing | Circuit Imaging Operator | ELE/Q2201 | Manufacturing | 4 |
| 20 | PCB Assembly | Through-hole Assembly Operator | ELE/Q5101 | Manufacturing | 4 |
| 21 | PCB Assembly | Pick and Place Assembly Operator | ELE/Q5102 | Manufacturing | 4 |
| 22 | Active Components | Verification Engineer | ELE/Q1301 | Design | 5 |
| 23 | Active Components | Embedded Software Engineer | ELE/Q1501 | Design | 5 |
| 24 | Active Components | Design Engineer | ELE/Q1201 | Design | 5 |
| 25 | LED Lighting | Mechanical Assembly Operator | ELE/Q9201 | Manufacturing | 4 |

Some important points of his presentation were-

- Structure of ensuring industry involvement.
- Possible Alignment of State Skilling Ecosystem with NSDC and Sector Skill Councils.
- Qualification Packs (QPs) and National Occupational Standards (NOS)
- Curriculum and session plan.
- Training of the trainer
- Training Partner Affiliation Protocol.

- Assessment of Partner Affiliation Protocol.


After the presentation, there were discussions on the following areas. The topics of discussion were as follows:

- What should be there in the training content?
- What should be there in the training aids?
- What should be the Qualification/Requirement of a master trainer?
- What will be the assessment process for trainees?
- What should be the proper process of certification for a certain course?

After the discussion, the session carried on with a presentation of process flow for Material Development.

He also presented on various job roles and its codes. Discussion also took place on various codes of job roles. At the end of the session, the participants were introduced to various vocational courses proposed by KKHSOU with a simple explanation of all the courses and also made a comparison of the courses with that of ESSCI.

## Session Report Day 2

The second day of the workshop continued with discussion by Shri N.K Mohapatra on Electronics Industry and its potentials. He mentioned that 65 % of current Electronics demand is met by imports. The reason behind this is that the manufacturing facility available in the country to avoid such import. Government of India intense to increase the total domestic manufacturing of electronic goods to 50% by 2015. This will create additional direct employment for nearly 2 lakh people to get into manufacturing industry in different job roles. For which it is very important to recognize the Electronic System Design & Manufacturing (ESDM) industry as a priority sector and provide a favorable environment for its growth.

He pointed out that the electronics industry potential is

- The 3rd largest pool of scientists in the world
- USD 29 Billion Consumer Electronics market by 2020
- USD 94.2 Billion – demand projected by 2015 in total
- 9.88% industry growth rate between 2011-2015

There are 2 government-driven initiatives to advance the growth in electronics. They are-

- National Knowledge Network
- National Optical Fiber Network

He also presented a statistical analysis about the Electronic System Design & Manufacturing (ESDM) industry in India. The Indian ESDM industry was worth USD 68.31 Billion in 2012 and is anticipated to be worth USD 94.2 Billion by 2015 with a CAGR of 9.88% between the years 2011-2015. The sector comprises are Electronic Products, Electronic Components, Semiconductor Design and Electronics Manufacturing Services (EMS).

According to him, now a days, manufacturing is not happening in small household factories. These house hold factories cannot run by doing its own manufacturing things. Because it is not economically feasible to do this. It is more economical to do at centralize facility which is mass manufacturing and it achieves better quality, better output and lower cost. So, everybody goes into the third party manufacturing facility i.e. the Electronics Manufacturing Services (EMS).

According to him, before going to the manufacturing part, it is important to think about the product first. Today the top 10 electronic products are Mobile phones, Flat panel display TVs, Notebooks, Desktops, Digital cameras, Inverters / UPS, Memory cards/USB drives, EMS/LCD Monitors and Servers.

Besides that he gave a presentation on expected electronic market by 2020.

- Telecom Equipment : US$ 34 B
- Laptops, Desktops, Tablets : US$ 34 B
- LED : US$ 35 B
- Consumer Electronics : US$ 29 B
- Set Top Boxes : US$ 10 B
- Automotive Electronics : US$ 10 B
- Medical Electronics : US$ 8.5 B
- Total ( Top 7 Sub-sectors) : US$ 160B

He explained about global market trends which include internet, tablet and ultra-book PCs, digital TVs etc. Above all, he also explained about global market trends in consumer electronics. His presentation focused on certain important points-

- Key ESDM milestones 2013-2014.
- Sector wise investment proposal(USD)
- Current market trend
- Future market focus
- Future outlooks of electronic sectors

- Skill requirement.
- Benefits of skill development on two ground-
  - for individuals
  - for industry

He also mentioned in his presentation that expansion of outreach, equity and access is the need of skill development. He emphasized on bridging supply and demand gap in India and also presented the demand for next 4 years which include job roles (qualification pack), sub sector, current employment and predicted cumulative demand till 2018.

After the presentation there was a short discussion on certain queries raised by the participants. Such as-

- What is the difference between cloud computing and server?
- What are the ways of Indian mobile manufacturing?

| Job Roles (Qualification pack) | Sub-sector | Current Employment | Predicted Cumulative Demand till 2018 |
|---|---|---|---|
| Field Technician – Air Conditioner | Consumer Electronics | 19,750 | 34,543 |
| Field Engineer – RACW | | 5,600 | 9,794 |
| TV Repair Technician | | 25,250 | 44,162 |
| Field Technician – Washing Machine | | 16,500 | 28,859 |
| Assembly Operator – Television | | 15,450 | 27,022 |
| Field Technician - Other home appliance | | 14,350 | 25,098 |
| Field Technician – Refrigerator | | 15,750 | 27,547 |
| Field Technician – Computing and Peripherals | IT Hardware | 51,600 | 70,201 |
| Installation Technician – Computing and Peripherals | | 40,000 | 54,420 |
| Field Technician – Networking and Storage | | 19,500 | 26,530 |
| Service Engineer | | 60,500 | 82,310 |
| CCTV Installation technician | | 9,950 | 20632 |
| DTH Set-top-box Service Technician | Communication Electronics | 12,350 | 21,600 |
| DAS Set-top-box Service Technician | | 8,100 | 14,167 |
| Smartphones Repair Technician | | 3,800 | 6,646 |
| Field Technician – UPS and Inverter | Industrial Electronics | 20,000 | 32,609 |
| Solar Panel Installation Technician | Solar Electronics | 31,785 | 50,014 |
| Mechanical Assembly Operator | LED Lighting | 3,300 | 6,843 |
| Installation and Service Engineer | Medical Electronics | 14,500 | 25,361 |
| PCB Assembly, Test and Repair | PCB Assembly | 6,755 | 9,890 |
| Through-hole Assembly Operator | | 9,536 | 13,962 |
| Circuit Imaging Operator | PCB Manufacturing | 2,050 | 3,342 |
| | Total | 406,376 | 628,457 |

After the end of the discussion by Shri N.K Mohapatra, the session was carried on by Dr. Ankuran Dutta with a brief summary on how to prepare a curriculum module of a particular short term skill development course. It was finalized that the minimum duration of the short term vocational course is 200 hours. The prepared curriculum module must be reviewed for every 1 year and will be revised after 2 years. He opined

that the entire curriculum module will be uploaded to the website of KKHSOU with the names of expert committee. He also assured that the evaluation will be done after the completion of these short term vocational courses to know whether the learners are absorbed in the job market or not.

The name the short term skill development vocational courses prepared by the participants and presenter are:

- Power Supply, Inverter & UPS presented by Rafiqul Islam
- Basic Computer Application presented by Sankhapani Bharali
- Electrical Safety Awareness Presented by Dipen Borpatra
- Electrical House wiring presented by Ridip Chutia
- Repairing and Maintenance of Domestic Electrical Appliances presented by Sibaji Choudhury
- Automobile Repair and maintenance
  (Two, Three and Four Wheeler) presented by Ashok Das
- Welding and plasma arc cutting presented by Birendra Nath Sarma
- Basics of Hair and Beauty Course presented by Mala Mahanta

## Day 3 Design of Short Term Skill Development Courses


In addition to the 20 vocational programmes mentioned above, the University has been offering short term vocational training programmes in a number of trades at different polytechnics and ITIs situated at different places of the state with a very nominal fees to encourage the youth to develop self-entrepreneurship or to take up different jobs. The University assigns the technical education institutes to conduct the programmes utilizing their expertise and well equipped laboratories. The main areas of these training programmes are:

Welding, Plumbing and Pump Installation, Electrical House Wiring, 2/3 Wheeler Maintenance and Repairing, Computer Application, Beautician, Electrical Motor Rewinding, Basic Automotive Servicing (2/3/4 Wheeler), Repairing of Electronic Domestic Appliances, RCC Masonry, Automobile Electrician, Cutting and Tailoring, Hardware and Networking, Machinist, Carpentry, Diesel Mechanic, Turner, Phenyl Making, Screen Printing etc.

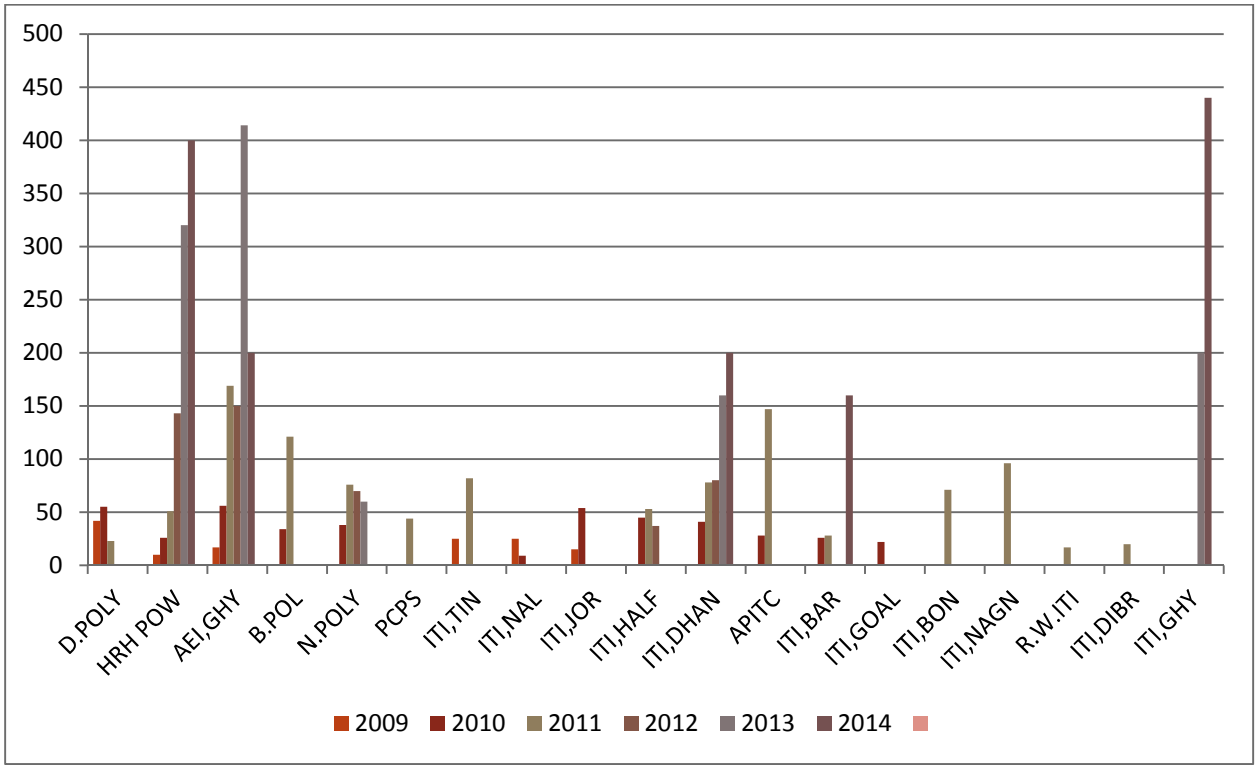
The examinations of these short term courses are conducted by the assigned Technical Institution and Polytechnics for their learners in their respective trades.

Total enrollment in various short term vocational training in assigned Polytechnics and ITIs of previous years is given below.

| Status of Short Term Vocational Training Through Polytechnics & ITIs | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sl.No.** | **Name of the Institute** | **Year of training** | | | | | |
| | | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** |
| 1 | Dibrugarh Polytechnic | 42 | 55 | 23 | | | |
| 2 | HRH POW, Jorhat | 10 | 26 | 51 | 143 | 320 | 400 |
| 3 | AEI, Guwahati | 17 | 56 | 169 | 150 | 414 | 200 |
| 4 | Bongaigaon Polytechnic | | 34 | 121 | | | |
| 5 | Nowgong Polytechnic | | 38 | 76 | 70 | 60 | 70 |
| 6 | PCPS Girls Polytechnic | | | 44 | | | |
| 7 | ITI, Tinsukia | 25 | | 82 | | | |
| 8 | ITI, Nalbari | 25 | 09 | | | | |
| 9 | ITI, Jorhat | 15 | 54 | | | | |
| 10 | ITI, Halflong | | 45 | 53 | 37 | | |
| 11 | ITI, Dhansiri | | 41 | 78 | 80 | 160 | 200 |
| 12 | APITC, Rowta | | 28 | 147 | | | |
| 13 | ITI, Barpeta | | 26 | 28 | | | 160 |
| 14 | ITI, Goalpara | | 22 | | | | |
| 15 | ITI, Bangaigaon | | | 71 | | | |
| 16 | ITI, Nagaon | | | 96 | | | |
| 17 | Regional Women ITI, Tinsukia | | | 17 | | | |
| 18 | ITI, Dibrugarh | | | 20 | | | |
| 19 | ITI, Women, Guwahati | | | | | 200 | 440 |
| **Total** | | **134** | **434** | **1076** | **480** | **1154** | **1470** |

**Grand Total: 4,748**

The statistical graph of total enrollment of these short term courses is shown below:




To design the short term skill development courses in various trades, the expert participants are divided into eight groups. The participants were given to identify the programme after that they had to prepare a sample curriculum which included both theory and practical components. Their curriculum includes the following aspects-

- **Program Name**
- **Pre-requisites to Training**
- **Training Outcomes**
- **Module Name**
- **Module Objectives**
- **Theory**
- **Practical**
- **Methodology of training**
- **Training Tools/Aids**
- **Recommended Study Hours**

After the preparation of the module, each group made a presentation of their module. The sample of the prepared module by each group is given.

1. **Programme Name:** Power Supply, Inverter & Ups Technician

- Experts:

i. Sri Satish Chandra Talukdar, Lecturer (Sr. Grade), Department of Electronics & Telecommunication Engineering, Assam Engineering Institute, Ghy-3.

ii. Sri Rafiqul Islam, Sr. Instructor, Department of Electronics & Telecommunication Engineering, Assam Engineering Institute, Ghy-3.

iii. Sri Prangshuman Das, Superintendent, Industrial Training Institute, Barpeta.

iv. Sri Bhupen Ch. Bardaloi, Instructor, Industrial Training Institute for Women, Guwahati.

- Minimum Training hours : 200Hrs
- Training Outcomes:
  - i. Identify different electronics components
  - ii. Detect the fault in power supply, inverter & UPS.
  - iii. Rectify & repair the faults in power supply, inverter & UPS
- Pre-requisites to Training: 10th Standard

2. **Programme Name:** Repairing and maintenance of domestic Electrical Appliances

- Experts:

i. Rois Udding Ahmed, HOD, Electrical Engineering Dept., AEI, Guwahati-3

ii. Sibaji Choudhury, Lect., AEI, Guwahati-3

iii. Dipen Barpatra, Jr. Inst., Electrical, POWI, Jorhat

iv. Ridip Chutia, Jr. Inst., Electrician, ITI, Dhansiri, Golaghat.

- Minimum Training hours : 150Hrs
- Training Outcomes:

i. Trainee will be able to perform the following tasks after end of the training programme.

ii. Trainee will be able to handle all the instruments /equipments needed for domestic electrical appliances

- Pre-requisites to Training: Minimum Class VIII passed

**Programme Name:** Basic Computer Application

- Experts:

i. Sri Sankha Pani Bharali, Lecturer and HOD (i/c), CSE Deptt, Nowgong Polytechnic, Nagaon.

ii. Sri Prashanta Kumar Das, Instructor IT&ESM, ITI Dhansiri, Barpathar,

iii. Sri Pinku Deka, Instructor COPA, ITI Dhansiri, Barpathar,

- Minimum Training hours : 200 Hrs
- Training Outcomes:

i. Individually operate a PC for day to day work.

ii. Write, Edit and Print a document.

iii. Prepare a presentation for a seminar or workshop.
iv. Viewing information on Internet, send/receive E- mails.
v. Secure the system against virus, malware, spyware and unauthorized access.

- Pre-requisites to Training: Minimum Class VIII passed

3. **Programme Name:** Automobile Repair And Maintenance(Two, Three and Four Wheeler)

- Experts:

i. Mr. Ashok Das, Senior Lecturer, Mechanical Engineering, Assam Engineering Institute, Guwahati-3
ii. Mr. Utpal Kalita, Lecturer, Mechanical Engineering, Nagaon Polytechnic
iii. Mr. Grajendra Nath Sarma, Senior Instructor, Mechanical Engineering, Assam Engineering Institute, Guwahati-3

- Minimum Training hours : 200 Hrs
- Training Outcomes:

i. They will be able to Dis-assemble and assemble various aggregates of a vehicle.
ii. They will be able to detect faults with the vehicle parts.
iii. They will be able to trouble shoot of a vehicle.
iv. They will be able to give maintenance tips for the maintenance of vehicle and also road safety tips and driving tips to the customers.

- Pre-requisites to Training: Minimum Class VIII passed

4. **Programme Name:** Electrical House wiring

- Experts:

i. Rois Udding Ahmed, HOD, Electrical Engineering Dept., AEI, Guwahati-3
ii. Sibaji Choudhury, Lect., AEI, Guwahati-3
iii. Dipen Barpatra, Jr. Inst., Electrical, POWI, Jorhat
iv. Ridip Chutia, Jr. Inst., Electrician, ITI, Dhansiri, Golaghat.

- Minimum Training hours : 200 Hrs
- Training Outcomes:

i. Trainee will be able to perform the following tasks after end of the training prog.
ii. Trainee will be able to handle all the instruments /equipment needed for house wiring
iii. The trainee will be able to know the various aspects of safety measures, Indian Electricity roles and acquired knowledge about proper earthing
iv. The trainee will have proper knowledge of first aids in case of electric shock.
v. The trainee will acquire proper knowledge of wiring system

- Pre-requisites to Training: Minimum Class VIII passed

5. **Programme Name:** Electrical Safety Awareness

- Experts:

i. Rois Udding Ahmed, HOD, Electrical Engineering Dept., AEI, Guwahati-3

ii. Sibaji Choudhury, Lect., AEI, Guwahati-3
iii. Dipen Barpatra, Jr. Inst., Electrical, POWI, Jorhat
iv. Ridip Chutia, Jr. Inst., Electrician, ITI, Dhansiri, Golaghat.

- Minimum Training hours : 12Hrs
- Training Outcomes:

i. This awareness programme will help the users of electrical appliances and also minimise physical effect of electric current.
ii. Through this programme they also acquire the knowledge and application of fire extinguisher.
iii. They also acquire the knowledge and importance of electrical earthing.

- Pre-requisites to Training: Minimum Class VIII passed

6. **Programme Name:** Welding and plasma arc cutting

- Expert:
  Birendra Nath Sarmah, Instructor, Welder, ITI, Guwahati, Gopinath, A K Azad Road, Guwahati-16
- Minimum Training hours : 200Hrs
- Training Outcomes:

i. Learn about electric metal arc welding, gas welding, gas cutting, brazing and soldering, TIG welding and MIG welding
ii. They would be able to install and operate the above welding plants equipments, and accessories with operational works
iii. They would be able to produce quality product of welding. In less time also they would be able to detect and rectify welding defects easily and economically.
iv. further they would be able to learn functional workshop plasma Arc cutting machine and would be able to cut metals in any shape in faster in less time for quality products.

- Pre-requisites to Training: HSLC passed

7. **Programme Name:** Basics Of Hair And Beauty Course

- Experts:

i. Anamika Barua, Instructor (Hair and Skin Care) ITI For Women Rehabari, Ghy.
ii. Mala Mahanta, Director of Imagik Beauty Clinic & Training Institute. Rajgarh Main Road, Ghy.
iii. Saviel D Rozario, Lakme Academy Guwahati East Zone Faculty.
iv. MinakshiKalita , Instructor (Hair And Skin Care) Barpeta ITI.

v. Jonali Dutta, Trainer, H.R.M POW Jorhat.
vi. Jyotima Rabha , Cosmetologist & Guest Faculty Of ITI, For Women, Ghy.

- Minimum Training hours : 200Hrs

- Training Outcomes:

i. Basic Knowledge of Hair and Skin
ii. Grooming and Handling Clients
iii. Basic Procedure in Practical
iv. Fit For Salon Assistant Beginners in all Salon Areas E.G. Hair, Skin, Manicure, Pedicure, Make-Up & Mahendi

- Pre-requisites to Training: Minimum Class VIII passed

**Recommendations from the workshop**

At the end of the presentation there was a general discussion among the participants regarding upgrading the vocational courses of KKHSOU. The participants had experiences of more than three years in running the short term vocational training courses on behalf of the university in their respective ITIs and Polytechnics scattered in different parts of the state. The discussion ends up with the following suggestions or recommendations from the participants based on the difficulties faced in running these courses.

- There must have a common syllabus for short term courses conducted in polytechnics and ITIs.
- Feedback must be taken from the faculty members regarding engagement of the learner after passing the vocational courses from the University.
- A suggestion was also made by the participants to establish some extension centers basically in some remote areas.
- More short term vocational courses should be introduced by the University.
- All courses should be introduced for minimum period of 200 hours (i.e, within 2 months)
- For preparation of a common syllabus minimum 3 experts should be appointed for each course.
- For every course there must be one standardized module.
- The course content must be reviewed after 1 year.
- Syllabus must be revised at least in every two years.
- A handout must be prepared for every course/trade (like self-instructional material)
- Suggestion was also made to introduce course like road safety.

**Closing Session**

After the interactive session with Dr. Ankuran Dutta and by receiving valuable suggestions by the participants regarding upgrading the vocational courses of the KKHSOU, the session was ended up with a valuable speech and vote of thanks by Dr. Arupjyoti Choudhury, Dean Academic, KKHSOU.


**Annexure- 1**

# WORKSHOP ON UPGRADTION OF THE VOCATIONAL COURSES OF KKHSOU TO NATIONAL SKILLS QUALIFICATION FRAMEWORK

***Organised by***
**Krishna Kanta Handiqui State Open University, Guwahati**
***In Collaboration with***
**Commonwealth Educational Media Centre for Asia (CEMCA),**
**New Delhi**
**Venue: Hotel Rajdhani Regency**
**Date: December 2-4, 2014**

**AGENDA DAY-1**

| Time | Session | Format | Facilitator/Presenter |
|---|---|---|---|
| 9:30-10:00 | Registration | | |
| 10:00-11:00 | **Inaugural Session** | Plenary session | |
| | Welcome Address | | Shri Rajat Baran Mahanta, The Registrar , KKHSOU, Guwahati |
| | Felicitation of the Chief Guest (Hon'ble Minister of Education and Industry) and Experts from the NSDC/ Sector Skill Councils | | |
| | Objectives of the workshop | | Dr. Ankuran Dutta<br>Programme Officer, CEMCA, New Delhi |
| | Skilling North East- KKHSOU Vision | | Professor Srinath Baruah, Vice Chancellor, KKHSOU, Guwahati |
| | Participants' introduction | | All |
| | An Overview of NSQF | | Shri N K Mohapatra, CEO, Electronics Sector Skill Council, New Delhi |
| | Formal Inauguration of the workshop by the Chief Guest | | Shri Pradyut Bordoloi, Hon'ble Minister of Education and Industry, Govt. of Assam |
| | Vote of Thanks | | Dr. Arupjyoti Choudhury, Dean, Academic, KKHSOU, Guwahati |
| 11:00-11:30 | Health Break | | |
| 11:30-12:00 | KKHSOU Initiatives in Skill Development | | Prof. Madhab Ch. Sarma, Director, Centre for Internal Quality Assurance, KKHSOU<br>Prof. Anniruddha Deka, Senior Consultant, KKHSOU, Guwahati |
| 12:00-13:00 | Workshop Overview | Plenary presentation and | *Discussion on National Skills Development in the backdrop of emerging techniques** <br>*Facilatator:* Shri N K Mohapatra, CEO, |

| | | | |
|---|---|---|---|
| | | discussions | Electronics Sector Skill Council, New Delhi |
| 13:00- 14:00 | Lunch | | |
| 14:00- 15:30 | Activity on syllabus development related to Electronics Sector Skill Council | Presentation | Shri N K Mohapatra, CEO, Electronics Sector Skill Council, New Delhi |
| 15:30-15:45 | Health Break | | |
| 15:45- 16:30 | Activity on syllabus development related to Electronics Sector Skill Council (contd) | Plenary presentation and discussions | Shri N K Mohapatra, CEO, Electronics Sector Skill Council, New Delhi |

**Day 2**

| Time | Session | Format | Facilitator/Presenter |
|---|---|---|---|
| 10:00-10:15 | Re-cap of Day-1 | | Dr. Ankuran Dutta<br>Programme Officer, CEMCA, New Delhi |
| 10.15- 11.00 | Activity on syllabus development related to Electronics Sector Skill Council (contd) | | Shri N K Mohapatra, CEO, Electronics Sector Skill Council, New Delhi |
| 11:00-11:30 | Health Break | | |
| 11:30-13:00 | Short term TVSD Curricula Development | | Dr. Ankuran Dutta<br>Programme Officer, CEMCA, New Delhi |
| 13:00- 14:00 | Lunch | | |
| 14:00- 15:30 | Group Activity | | Dr. Ankuran Dutta<br>Programme Officer, CEMCA, New Delhi |
| 15:30-15:45 | Health Break | | |
| 15:45- 16:30 | Presentations on the learning outcomes from the proposed courses | | All participants |
| 16.30- 16.45 | Summing up the Day-2 | | Dr. Ankuran Dutta<br>Programme Officer, CEMCA, New Delhi |

**Day 3**

| Time | Session | Format | Facilitator/Presenter |
|---|---|---|---|
| 10:00-10:15 | Re-cap of Day-2 | | Dr. Ankuran Dutta<br>Programme Officer, CEMCA, New Delhi |
| 10:15-11:00 | Presentation of the prepared syllabus from Electronics, IT, Automobile | | Rafiqul Islam, Senior Instructor, AEI/<br>Prasanta Kr. Das, ITI Dhansiri/<br>Ashok Das, Lecture, AEI/ |
| 11:00-11:30 | Health Break | | |
| 11:30-13:00 | Presentation of the prepared syllabus from Electrical & Welding sector<br><br>Presentation of the Prepared syllabus from Beauty sector | Plenary presentation and discussions | Dipen Borpatra, Instructor,<br>POW Institute/<br>Birendra Nath Sarma, Instructor, ITI Guwahati<br><br>Mala Mahanta, Beauty Expert |
| 13:00- 14:00 | Lunch | | |
| 14:00- 15:30 | Workshop evaluation and valedictory Session | Plenary presentations and discussions | Chair: Dr. Arupjyoti Choudhury, Dean Academic, KKHSOU<br><br>Dr. Ankuran Dutta<br>Programme Officer, CEMCA, New Delhi<br><br>Vote of Thanks by Mr. Nabankur Pathak |
| 15:30-15:45 | Health Break | | |

**End of Workshop**

## Annexure- 2

**List of Participants**

| Sl. No. | Name | Designation | Organization | Address | Sector |
|---|---|---|---|---|---|
| 1 | Prangshuman Das | Superintendent | Industrial Training Institute, Barpeta | ITI, B.B. Road, Barpeta-781301, Assam | Electronics |
| 2 | Rafiqul Islam | Senior Instructor | Assam Engineering Institute, Chandmari | AEI, Chandmari, Guwahati-781003 Assam | |
| 3 | Satish Ch. Talukdar | Lecturer Electronics & Telecommunicatio n Depertment | Assam Engineering Institute, Chandmari | AEI, Chandmari, Guwahati-781003 Assam | |
| 4 | Bhupen Ch. Bordoloi | Instructor | Industrial Training Institute For Women, Guwahati | ITI For Women, Rehabari, Guwahati-781008 | |
| 5 | Sankhapani Bharali | HOD(I/C), Computer Science Department | Nowgong Polytechnic, | Nowgong Polytechnic, Itachali (Near Panigaon) Nagaon-782001 | IT |
| 6 | Prasanta Kr. Das | Instructor | Industrial Training Institute, Dhansiri | ITI, Dhansiri, Barpathar, Golaghat-785602 Assam | |
| 7 | Pinku Deka | Instructor | Industrial Training Institute, Dhansiri | ITI, Dhansiri, Barpathar, Golaghat-785602 Assam | |
| 8 | Manjul Sarma | Principal (I/C) & HOD Department of Mechanical Engineering | Nowgong Polytechnic, | Nowgong Polytechnic, Itachali (Near Panigaon) Nagaon-782001 | Automobile |
| 9 | Ashok Das | Senior Lecturer, Department of Mechanical Engineering | Assam Engineering Institute, Chandmari | AEI, Chandmari, Guwahati-781003 Assam | |
| 10 | Gajendra Nath Sarma | Lecturer, Department of Mechanical Engineering | Assam Engineering Institute, Chandmari | AEI, Chandmari, Guwahati-781003 Assam | |
| 11 | Utpal Kalita | Lecturer, Department of Mechanical Engineering | Nowgong Polytechnic, | Nowgong Polytechnic, Itachali (Near Panigaon) Nagaon-782001 | |
| 12 | Mridul Buragohain | Senior Instructor, Automobile Engg. | Prince of Wales Institute, Jorhat | Prince of Wales, K.B. Road, Jorhat-785001 | |
| 13 | Md. Kurban Ali | Instructor | Industrial Training Institute, Barpeta | ITI, B.B. Road, Barpeta-781301, Assam | |
| 14 | Niranjan Kr. Das | Faculty (Automobile) | George Telegraph Training Institute | GTTI, Rajgarh Road, House No.180, | |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Guwahati-781007 | |
| 15 | Baladev Borkataki | Faculty (Automobile) | George Telegraph Training Institute | GTTI, Rajgarh Road, House No.180, Guwahati-781007 | |
| 16 | Dipen Borpatra | Instructor, Electrical Engg. | Prince of Wales Institute, Jorhat | Prince of Wales, K.B. Road, Jorhat-785001 | Electrical |
| 17 | Rois Uddin Ahmed | HOD, Electrical Engg. Department | Assam Engineering Institute, Chandmari | AEI, Chandmari, Guwahati-781003 Assam | |
| 18 | Sibaji Choudhury | Lecturer, Electrical Engg. Department | Assam Engineering Institute, Chandmari | AEI, Chandmari, Guwahati-781003 Assam | |
| 19 | Ridip Chutia | Instructor | Industrial Training Institute, Dhansiri | ITI, Dhansiri, Barpathar, Golaghat-785602 Assam | |
| 20 | Birendra Nath Sarma | Instructor | Industrial Training Institute, Guwahati | ITI, A.K. Azad Road, Gopinath Nagar Guwahati-781016 | Welding |
| 21 | Dipak Handique | Instructor (Welder) | Industrial Training Institute, Dhansiri | ITI, Dhansiri, Barpathar, Golaghat-785602 Assam | |
| 22 | Anamika Barua | Instructor | Industrial Training Institute For Women, Guwahati | ITI For Women, Rehabari, Guwahati-781008 | Beauty & Wellness |
| 23 | Mala Mahanta | Beauty Expert | Imagik Beauty Clinic & Training Institute | Imagik Beauty Clinic & Training Institute, Rajgarh Main road, Guwahati | |
| 25 | JyotimaRabha | Guest faculty | Industrial Training Institute For Women, Guwahati | ITI For Women, Rehabari, Guwahati-781008 | |
| 26 | MinakshiKalita | Superintendent | Industrial Training Institute, Barpeta | ITI, B.B. Road, Barpeta-781301, Assam | |
| 27 | Saviec Drozaario | Trainer | Lakme Academy | | |
| 28 | Krishna Bania | Superintendent | Industrial Training Institute For Women, Guwahati | ITI For Women, Rehabari, Guwahati-781008 | |
| 29 | Sachin Das | Training Manager (Home Appliances) | Godrej & Boyce Manufacturing Company Ltd. | Godrej & Boyce Mfg. Co. Ltd.B.K. Kalita Road, Ulubari Guwahati-781007 | |

## News Coverage

***The Assam Tribune, Guwahati: 03/12/2014***

# Workshop on upgradation of vocational courses

GUWAHATI, Dec 2 – The Krishna Kanta Handiqui State Open University in collaboration with the Commonwealth Educational Media Centre for Asia (CEMCA) New Delhi organised a workshop on 'Upgradation of the Vocational Courses of KKHSOU to National Skills Qualification Framework' today here. The workshop was graced by a number of distinguished dignitaries including officials from the university. Altogether 30 participants from different ITIs and other government as well as private institutes of the state participated in the said workshop, stated a press release.

Dr Ankuran Dutta, Programme Officer (Livelihood and Health), CEMCA outlined the importance of the workshop by saying that different vocational and skill-based programmes must be upgraded as per National Skills Qualification Framework (NSQF). He deliberated on the issues pertaining to the contributions made by CEMCA in the field of skill development.

Vice Chancellor of Krishna Kanta Handiqui State Open University, Professor Srinath Baruah underlined the fact that the university would implement more skill-based programmes for the learners in order to strengthen their ability to adapt to the changing market scenario. He specifically mentioned the fact that the university had made it mandatory for the learners to pursue three programmes – Spoken English, Computer Application and Office Management, at the degree level.


*State Minister of Power and Public Enterprises Pradyut Bordoloi delivering the inaugural speech at a workshop on 'Upgradation of the Vocational Courses of KKHSOU to National Skills Qualification Framework,' in Guwahati on Tuesday. – UB Photos*

State minister of Education, Industry & Commerce, Power and Public Enterprises, Pradyut Bordoloi formally inaugurated the workshop. He emphasized the fact that the Assam Government has been relentlessly pursuing for the development of skill-based education in the State. In fact, plans are afoot to set up 12 model degree colleges, which are currently under construction. He also stressed on the need to have 'community colleges' in line with the western countries whereby the learners would be exposed to different skill-based courses to take on the challenges of the job market in the long way. The minister further said that KKHSOU can pool-in different resources and provide the much-needed platform to the learners/students of these model colleges.

NK Mohapatra, CEO, Electronic Sector Skill Council of India, New Delhi outlined the fact that the Government has laid importance on implementing the National Skills Qualification Framework (NSQF) in the country by 2018. Although he spoke about the challenges that might be encountered in the implementation of the aforementioned framework, yet the active cooperation from different sectors would make the initiative a success.

The Registrar of the university, Rajat Baran Mahanta delivered the vote of thanks.

***The Sentinel, Guwahati: 03/12/2014***

old city buses that are not fit for plying on city roads.

# KK Handique varsity holds workshop

GUWAHATI, December 2: Krishna Kanta Handiqui State Open University, in collaboration with Commonwealth Educational Media Centre for Asia (CEMCA), New Delhi, organized a workshop on "Upgradation of the Vocational Courses of KKHSOU to National Skills Qualification Framework" on Wednesday in Guwahati. Altogether 30 participants from different ITIs and other government as well as private institutes of the state participated in the workshop. While Dr. Ankuran Dutta, programme officer (Livelihood and Health), CEMCA outlined the importance of the workshop, Vice Chancellor of the University, Professor Srinath Baruah, underlined the fact that the University would implement more skill-based programmes for the learners in order to strengthen their ability to adapt to the changing market scenario, a press release said.