Emerging Technologies are creating boundless opportunities and re-defining competitiveness in the field of Technology. Digital fields like Automation, Artificial Intelligence, Robotics, Machine Learning, Blockchain and Big Data Analytics are making Digital Infrastructure robust by boosting digital payments and e-Governance services.

I am delighted to inform you that NIELIT is now ISO 9001:2015 certified, providing quality industry oriented services pertaining to the administration of NIELIT accredited courses; O/A/B/C Level Courses in IT and BCC/CCC (Digital Literacy Courses) that are being governed by NIELIT Headquarters.

The 36th meeting of the NIELIT Governing Council was held on 15 December, 2018 under the Chairmanship of Shri Ravi Shankar Prasad, Hon’ble Minister of Electronics & IT. The Council was apprised of actions taken on various fronts and several important matters were deliberated towards resolution. I wish to express my deep gratitude to the Hon’ble Minister for providing encouragement and guidance for future path of NIELIT. I would also like to express my deep gratitude to Shri Ajay Prakash Sawhney, Secretary, MeitY and Executive Vice Chairperson, NIELIT GC and other esteemed Members of the Council, from industry and academia, besides senior officials of MeitY, for their valuable inputs in guiding NIELIT’s journey in skill development and capacity building.

Earlier, the 18th Management Board meeting of NIELIT was held on 26th November 2018 under the Chairpersonship of Sh. Ajay Prakash Sawhney, Secretary, MeitY where various important issues were highlighted and deliberated.

NIELIT has been promoting emerging technology in collaboration with industry for development of suitable/appropriate skill sets to prepare youth for future jobs. In line, NIELIT has introduced courses in the fields of Artificial Intelligence, Blockchain, Cyber Security, Internet of Things (IoT), Big Data etc. NIELIT organized various expert talks and trainings across Centres on such subjects and provided guidance to students to find suitable jobs in the emerging fields.

I wish all the readers a very happy and a prosperous New Year, 2019 and look forward to your continued support in making NIELIT an important institution in the field of IECT.

Dr. Jaideep Kumar Mishra
**36TH MEETING OF NIELIT GOVERNING COUNCIL**

HQ: The 36th Meeting of the Governing Council of NIELIT was held under the Chairmanship of Shri Ravi Shankar Prasad, Hon’ble Minister of Electronics & Information Technology and Law & Justice and Chairman, GC, NIELIT in presence of Shri Ajay Prakash Sawnhney, Secretary, MeitY and Executive Vice Chairperson, GC, NIELIT on 15th December, 2018 at New Delhi. Dr. Jaideep Kumar Mishra, Director-General, NIELIT and Joint Secretary, MeitY welcomed the Members of the Council.

Ms. Kiran Soni Gupta, Additional Secretary & Financial Adviser, MeitY; Shri Roop Kishor, Director, ABC Division, MeitY; Dr. Avichal Kapur, Joint Secretary, UGC; Dr. N. Saravana Kumar, Joint Secretary, MHRD; Dr. N.H. Siddalinga Swamy, Director(e-Gov), AICTE; Shri Amit Aggarwal, Chief Executive Officer, Sector Skill Council, NASSCOM; Prof.(Dr.) K.T.V. Reddy, President IETE; Shri Vineet Nayar, Founder, Sampark Foundation; Shri Hariom Rai, Chairman, Lava International Ltd. and other Senior Officers of NIELIT and MeitY also attended the meeting. The Council deliberated on many key issues including adaption of new technologies in emerging areas.

**MANAGEMENT BOARD MEETING**

HQ: The 18th Meeting of the Management Board of NIELIT was held on 26th November, 2018, under the Chairpersonship of Shri Ajay Prakash Sawnhney, Secretary, Ministry of Electronics and Information Technology (MeitY). The Meeting was also attended by Ms. Kiran Soni Gupta, Additional Secretary and Financial Adviser, MeitY; Shri Rajiv Kumar, Joint Secretary, MeitY and Dr. Jaideep Kumar Mishra, Joint Secretary, MeitY and Director General, NIELIT; Dr. B.K. Murthy, Scientist ‘G’, MeitY and Shri A.K. Pipal, HoD(HRD), MeitY besides Executive Director of NIELIT Centres and other Senior Officers from MeitY and NIELIT. The Board appreciated the overall performance of NIELIT.

**FINANCE & ACCOUNTS COMMITTEE**

HQ: The 36th Meeting of the Finance & Accounts Committee (F&A) of NIELIT was held on 16th October 2018 at Electronics Niketan, New Delhi in the presence of Ms. Kiran Soni Gupta, Additional Secretary & Financial Advisor, MeitY and Dr. Jaideep Kumar Mishra, Joint Secretary, MeitY and Director General, NIELIT. Shri A.K. Pipal, Director & HoD(HRD), MeitY; Shri Roop Kishor, Deputy Secretary, ABC Division, MeitY; Shri Janak Raj, Registrar, NIELIT; Ms. Chaman Sharma, CFO Incharge, NIELIT and other Senior Officers of NIELIT attended the meeting.

Besides other points, the Committee considered the financial status of NIELIT and its Centres for the financial year 2017-18 and also appreciated NIELIT for its self-sustainability.

**MEETING WITH NASSCOM**

HQ: NIELIT officials held a meeting with Shri Amit Aggarwal VP (NASSCOM) & CEO, (Sector Skills Council) and IEE team to discuss launching of Advanced Training Programs. Dr. Y. Jayanta Singh, Director, NIELIT Kolkata; Dr. Manish Arora, Addl. Director, NIELIT Chandigarh and Shri Rajneesh K. Asthana, Joint Director, NIELIT Delhi were present.

**STATE EDUCATION DEPARTMENT REVIEWS NIELIT J&K**

Jammu: A team of Senior Officers from the Higher Education Department, Govt. of J&K visited NIELIT Srinagar on 10th December, 2018 to inspect its infrastructure and other facilities for renewal of MCA and M.Sc IT courses for the year 2018-19. The inspection was followed by a meeting held in the conference room of NIELIT Srinagar, Chaired by the Principal, Govt. Degree College, Nawakadal, Srinagar. Other members included Professors from Govt. Degree College, Nawakadal and Bemina Degree College, Srinagar. Shri V.S Krishnamurthy, Officer In-Charge, NIELIT Srinagar welcomed the team and gave a detailed presentation about the current activities of NIELIT J&K. The committee appreciated and showed satisfaction with the efforts of NIELIT faculty and staff along with some recommendations.
NEWS HIGHLIGHTS

LAUNCH OF SCHOOL INSPECTION PORTAL

Agartala: The launch event of the ‘School Inspection Portal’ (www.schoolinspectiontr.in) developed by NIELIT Agartala team was inaugurated by Shri Ratan Lal Nath, Hon’ble Minister of School and Higher Education, Govt of Tripura in the august presence of Shri U.K.Chakma, Director, School Education Department; Shri Anurag Mathur, Director In-charge, NIELIT Agartala and other dignitaries from School Education Deptt. and NIELIT Agartala on 27.09.2018.

Dr M P Pillai Executive Director, NIELIT Calicut was part of a high level MeitY delegation to Taiwan during 09th-12th October, 2018 headed by Shri Pankaj Kumar, Additional Secretary, MeitY. The objective of the visit was to promote investments in ESDM Sector. The delegation visited and held discussion with various industries including Innolux Industries, Hsinchu Science Park, Industrial Technology Research Institute (ITRI), Pegatron etc. Detailed discussions were held with the officials of Industrial Development Bureau, Ministry of Economic Affairs, Government of Taiwan on continuation of “Mobile handset design training” earlier implemented through NIELIT.

IDB has shown keen interest in providing support from their side in continuing the training (Phase III) with more hands-on training and adding contents related to IoT. It was decided to work out the time line for various activities and proposed changes in the program at the earliest through mutual discussions. NIELIT to take lead in this activity and is in the process of preparing a detailed proposal.

DIRECTOR GENERAL REVIEWED NIELIT CHANDIGARH

Chandigarh: Dr Jaideep Kumar Mishra, Joint Secretary, MeitY and Director General, NIELIT visited NIELIT Chandigarh on 30th November, 2018. He interacted with the officials of various sections and was apprised about ongoing projects implemented by the Centre.
Director General Reviewed NIELIT Ropar

Ropar: Dr. Jaideep Kumar Mishra, Director General, NIELIT and Joint Secretary, MeitY visited NIELIT Ropar Campus on 29th November, 2018. Ms. Sunita Goyle, Director, NIELIT Chandigarh and Shri B.B. Dua, Joint Director & HoW(Tech), NIELIT HQ were also present on this occasion. Shri Deepak Wasan, Director-in-charge, NIELIT Ropar welcomed them and briefed Director General, NIELIT about the current activities at NIELIT Ropar.

In a separate event, Shri Sumeet Jarangal, Deputy Commissioner, Ropar along with Shri Rajiv Gupta, Addl. Deputy Commissioner of Ropar District visited NIELIT Ropar campus. Shri Deepak Wasan, Director In-charge and officials of NIELIT Ropar briefed them about the current activities.

NIELIT Jammu Developed Website for State Government

Jammu: Principal Secretary, Health and Medical Education Department, Shri Atal Dulloo launched the website of J&K State Dental Council (JKSDC) developed by NIELIT Jammu on 11th December, 2018. Dr Romesh Singh, President JKSDC; Dr Riyaz Farooq, Member of DCI; Dr Rakesh K Gupta, Member of DCI; Dr Ritesh Gupta, Registrar, JKSDC; Dr Mohammad Mushtaq, Secretary, JKSDC; Dr Ghulam Mohi-ud-Din, Vice President, JKSDC; other members of JKSDC and faculty members of Indira Gandhi Government Dental College were also present on this occasion. This website will ease the registration and renewal procedures of JKSDC and will also bring transparency to the system.

Commencement of Training at Majuli Extension Centre of NIELIT Guwahati

Guwahati: As per the announcement on 30th July 2018, by Hon’ble Union Minister of Electronics & Information Technology and Law & Justice, Shri Ravi Shankar Prasad during a meeting with the Hon’ble Chief Minister of Assam, Shri Sarbananda Sonowal on opening of a new NIELIT Centre at Majuli, Assam.

NIELIT Guwahati took possession of a rented built up space in Majuli. This was achieved with the help of Govt. of Assam and administrative of Majuli. After necessary pre-commissioning formalities, the centre at Majuli was made operational on 9th October, 2018 with a batch of 20 (twenty) Assam Government employees who had undergone the Ministry of DoNER sponsored 14 (fourteen) days long training on IT & Digital services. The commencement of the programme was attended by Shri K. Baruah, Director, NIELIT Guwahati; Dr. Nava Kr. Gam, Principal, Rangachahi College, Majuli; Shri Kumud Goswami, Principal, Pitambar Dev H. S. School, Majuli; Shri Pulen Sarkar, Manager, United Bank of India, Garmur Branch, Majuli; Shri Jiten Das, Branch Manager, LIC of India, Garmur Branch and Shri Basaram Baruah, a renowned Social Worker of Majuli. This programme was coordinated by Dr. Saurov Mahanta, Sr. Technical Officer of NIELIT Guwahati along with Shri Prankrishna Tamooli, Centre In-charge of Jorhat Extension Centre of NIELIT Guwahati.
January 2019

**CONFERENCES/ SEMINARS/ WORKSHOPS**

**INDUCTION PROGRAMME OF DIPLOMA ENGINEERING COURSE**

*Agartala*: An induction program for the 2nd Batch of students of Diploma Engineering Courses have been conducted in line with AICTE on 20th August, 2018. The students inducted into the course have been made aware about the Institute, course curriculum, need of maintaining discipline in life and study, importance of respecting Human values, maintaining cleanliness in the campus and society etc.

**VIGILANCE AWARENESS**

*Chandigarh*: The Director and staff of NIELIT Chandigarh took pledge on the commencement of Vigilance Awareness Week from 29th October to 3rd November, 2018 followed by a walkathon by staff members and students.

Also, a lecture on Vigilance Awareness by Ms Meenakshi Gaur, Additional Director, NIELIT Chandigarh was organized for around 100 students of ITI for Women, Mohali on 1st November, 2018. Also, a lecture on ‘How GeM (Government E-Marketplace) portal has eradicated Malpractices’ was delivered by Shri Atul Verma, GeM Certified Expert (Ex. Financial Consultant, Chandigarh Administration) to the staff of the Centre. The GeM Expert answered the queries by the staff on procurement process on GeM portal.

**CLOUD COMPUTING**

*Chandigarh*: Dr Manish Arora delivered a lecture on Cloud Computing at Baba Banda Singh Bahadur College of Engg., Fatehgarh Sahib, Punjab. Over 100 students of the college attended the lecture. In this event, Major General (Dr.) Gurcharan Singh Lamba, VSM (Retd.), Principal; Dr J S Oberoi, HoD (Training & Placement) and Dr Baljit, HoD (Computer Science) of Baba Banda Singh Bahadur College of Engg. were also present.

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**हिंदी माध्यम का प्रचार—प्रसार**

5 दिसंबर, 2018 को, टाज आधिकारिक माध्यम कार्यन्यया समिति की वारिष्ठ बैठक श्रीनगर में आयोजित की गई। बैठक में नाइलिट श्रीनगर सहित शहर में स्थित केंद्र सरकार के सभी कार्यालयों/उपक्रमों/बैकेंड ने भाग लिया। यह बैठक मुख्य पोस्ट मास्टर जनरल, जम्मू और कश्मीर सरकार, और श्री कृष्ण प्रकाश का अध्यक्षता में आयोजित की गई थी। विभिन्न संगठनों के प्रतिभागियों/प्रमुखों को अपने कार्यालय के काम को अधिकतम हिंदी में करने के लिए कहा गया। विभिन्न संगठनों को भी राजभाषा वेबसाइट पर अपना पंजीकरण करने और अपने कार्यालयों में हिंदी के उपयोग की रचना की ऑनलाइन सिपाह प्रस्तुत करने के लिए कहा गया।
INDUSTRIAL VISITS

Chandigarh: NIELIT Chandigarh was visited by students of Baba Banda Singh Bahadur College of Engineering on 1st November, 2018. During the visit, awareness lectures about latest technologies were provided to the students. Another 35 students from Continental Group of College, Fatehgarh Sahib visited the Centre as a part of industrial visit. The students were apprised about the various emerging and growing technologies in the area of IT and Electronics. In yet another event, 30 students of UIET, Hoshiarpur visited NIELIT Chandigarh on 3rd December, 2018.

IT RESEARCH INTERNATIONAL CONFERENCE

Imphal: Shri L. Shyam Sundar Singh (Scientist-D), NIELIT Imphal joined the IT Research International Conference held at Kolkata on 4th November, 2018 as the Session Chair and Invited Speaker, organized by Institute for Technology & Research, IRAJ Research Forum.

Jammu: NIELIT Jammu organized an Information Security Education and Awareness (ISEA) Workshop at Sher-I-Kashmir Police Academy, Udhampur on 28th November, 2018 for J&K Police Officials. Main topics of discussion were Information Security and tools, Cyber Crimes and Wi-Fi Security etc. The workshop proved to be an informative platform for the Police Officials.

INFORMATION SECURITY EDUCATION AND AWARENESS (ISEA)

Kolkata: 2-Day Regional Training Programme on Digitization of Phase II of Agriculture Census 2015-16 and Phase III (Input Survey 2016-17) was organized from 4th October, to 5th October 2018 at Puducherry. The training was provided by NIELIT Kolkata AgriCensus team headed by Mr. Goutam Saha, Sc-D and Nodal Officer cum Chief Co-ordinator of the Project. The programme was inaugurated by the Hon'ble Minister of Statistics, Govt. of Puducherry in the august presence of Ms. Padma Jaiswal, IAS, Secretary, Govt. of Puducherry; Dr. Vidya Dhar, Addl. Director General and Agriculture Census Commissioner; Ms. Sudha P Rao, Principal Advisor, MoA, Gol and Ms. Radha Ashrit, Director(Agriculture Census), MoA, Gol. The training was provided to the states/union territories of Andaman & Nicobar Islands, Bihar, Chhattisgarh, Delhi, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Lakshadweep, Madhya Pradesh, Odisha, Punjab and Puducherry.

TRAINING PROGRAM ON DIGITIZATION

Kolkata: NIELIT Kolkata conducted a 2-day Hands-on Master Training on 'Blockchain Technologies' for its employees by industry experts during 26th -27th October, 2018 at its JU Campus office. An Invited Talk on Blockchain Technology by Dr Jims Ningshen Marchang, Lecturer (Course Leader of Cybersecurity), Department of Computing, Sheffiled Hallam University, UK through Skype was also organised by NIELIT Kolkata on 13th November, 2018. 41 number of students and officials of the Centre attended the programme.
‘ERADICATE CORRUPTION - BUILD A NEW INDIA’

Kolkata: One-day Workshop on “Eradicate Corruption - Build a New India” was organized by NIELIT Kolkata on 31st October, 2018 at Hotel De Sovrani, Kolkata, under the Chairmanship of Shri Prafulla Kumar, Scientist-G, MeitY and CVO, NIELIT in presence of Shri S. K. Singh, JS and Incharge, State Vigilance Commission, WB; Dr. Y. J. Singh, Director, NIELIT Kolkata and other NIELIT Kolkata officials. The workshop was addressed by Dr. Jaideep Kumar Mishra, JS, MeitY and DG, NIELIT and Shri Janak Raj, Registrar, NIELIT through video conferencing. The programme was also attended by Vigilance Officers of all NIELIT Centres across the country.

INTERNATIONAL SYMPOSIUM ON SIGNAL AND IMAGE PROCESSING

Kolkata: The inaugural session of 2nd International Symposium on Signal and Image Processing (ISSIP 2018), collocated with the 2018 Fourth International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN 2018), during 21st -22nd November, 2018 at RCCIIT, Kolkata. Dr. Y. Jayanta Singh, Director, delivered a talk on ‘Recent trend in Image Processing & its Application’. A technical paper was also presented by Sharmistha Bhattacharjee, Sc-D on "An Effective Monitoring of Women Reproductive Organ Cancer using Mean based KPCA ". The entire program was partly supported by NIELIT Kolkata.

FACULTY DEVELOPMENT PROGRAM ON IoT

Kolkata: NIELIT Kolkata has organized a 5-day Faculty Development Training Program on Internet of Things (IoT) conducted by Dr. Yumnam Kirani Singh of C-DAC, Silchar for the employees of NIELIT during 10th to 14th December, 2018 at NIELIT Kolkata. The programme was also attended by some faculties of NIELIT Agartala, Gangtok, Delhi, Guwahati, Imphal and Bhubaneswar.

SUNDERBAN KRISTI MELA

Kolkata: NIELIT Kolkata has participated in the 23rd Sundarban Kristi Mela O Loko Sanskriti Utsab which was held at the remote location of Kultali (Basanti) in the South 24 Parganas District during 20th to 29th December, 2018. The fair-cum-exhibition, held in the Sundarbans, was visited by several thousands of the local populace apart from participation from Central and State governments.

e-NAGA SUMMIT

Kohima: The staff and students of NIELIT Kohima attended the State level e-Naga Summit held in Kohima on November 30, 2018 organized by the IT & Communication Department, Govt. of Nagaland in collaboration with e-Governance Academy of Estonia.

WORKSHOP ON INFORMATION SECURITY EDUCATION & AWARENESS (ISEA)

Patna: NIELIT Patna conducted a 2 day ISEA workshop for Employees of Bihar Industrial Area Development Authority (BIADA), Govt of Bihar during 29-30th, November, 2018. A total 34 employees participated in the workshop. A similar workshop was organized for the students and employees of Maulana Azad College of Engineering and Technology, Patna on 5th December, 2018. A total of 58 participants attended the workshop.
WORKSHOP FOR BIHAR POLICE EMPLOYEES

Patna: A workshop on IP, Website and e-Mail Tracing for the employees of CYBER CELL, Bihar Police was organized by NIELIT Patna on 12th December, 2018.

A LECTURE ON CAREER GUIDANCE

Ropar: A Senior Buddy Awareness Program was organized by Government College, Rupnagar with the aim of educating students about the consequences of drug addiction. Shri Deepak Wasan, Director In-charge, NIELIT Ropar was invited for a special lecture on career guidance on this occasion. Shri Wasan encouraged the students to enhance their soft skills through IECT Training for getting better employment opportunities.

WORKSHOPS ON EMERGING TECHNOLOGIES

Chandigarh: NIELIT Chandigarh organized a workshop on enhancing employability skills of students at Punjab University, Patiala on 24th October 2018. Dr. Sarwan Singh, Dy. Director of the Centre apprised the audience about upcoming trends in IoT and other aspects of machine learning which was attended by around 40 students and faculty members.

A workshop on Web Technologies and Ethical Hacking was conducted for the B. Tech students of Baba Farid Group of Institutions, Bhatinda on 30th October, 2018 by Ms Meenu Dhir, JD and Mr. Raminder Singh, JD of NIELIT Chandigarh. Around 45 students attended the workshop.

Another workshop on emerging technologies was conducted on 4th November, 2018 for more than 70 students. Ms Anita Budhiraja, Joint Director provided awareness on Big Data and Python and Dr Sarwan Singh, Deputy Director lectured on IoT and BlockChain.

R & D PROJECTS

ESTABLISHMENT OF AN ANTI-SPAM COORDINATION CENTRE

Imphal: An R&D project sponsored by MeitY is being implemented by NIELIT Imphal and Guwahati Centre. Under this project, a large amount of spam mails are collected using spam traps and various spam analysis such as detection of spam origin, embedded URL analysis for maliciousness, spam campaign detection etc., are being conducted. Information dashboard is developed for quick and easy analysis of results.

Architecture of the Anti-Spam Coordination Centre

Dashboard indicating statistical outcome of the project

NATIONAL RESOURCE CENTRE AT NIELIT PATNA

Patna: NIELIT Patna is now the National Resource Centre for Government Officers training in the state of Bihar. NIELIT Patna is setting up an e-Learning portal as a part of National Coordination Centre and will establish many virtual labs such as Virtual Training Environment for online training on Information Security; Security Concepts Lab; Penetration Testing Lab; Network Security Simulation Lab; an e-Learning portal for Technology Enhanced Learning etc.
CAPACITY BUILDING OF GOVERNMENT OFFICIALS IN IT AND DIGITAL SERVICES

NIELIT is implementing a project entitled “Capacity Building in IT and Digital Services (including Digital payments and GST) for State Govt. officials of NE States”. In this regard, Ministry of Development of North Eastern Region (MDoNER) has sanctioned Rs.6,83,70,000/- for training 10000 Nos. of State Govt. Officials in NE States, out of which Rs.3,41,85,000/- has already been released. The objective is to enhance the IT skills of State Govt. officials of North East Region by providing them with digital skills viz. Digital literacy, Digital payments, e-Governance services & GST training, and to facilitate adoption as well as regular use of IT and Digital Services as a way of life, and especially in official work. The training is a 98 hours curriculum delivered in 14 working days and the course comprises of modules on IT Literacy, Digital Payment, GST and e-Governance Services. At present, the capacity building of Government Officials is in full swing across all North Eastern States.

Agartala: Training of Govt. employees for the Project was organized in 19 locations of Tripura State i.e at O/o The District Magistrate and Collector of North Tripura, Sepahijala, Gomati, Unakoti, South Tripura, Khowai, Dhalai and Fatikroy; Government Degree College, Kanchanpur and Gandacherra; Iswar Chandra Vidyasagar College, Belonia; Ramthakur College, Agartala; Netaji Subhash Mahavidyalaya, Udaipur; Swami Vivekananda Mahavidyalaya, Mohanpur; Dasaratha Deb Memorial College, Khowai; Women’s College, Agartala; Rabindranath Thakur Mahavidyalaya, Bishalgarh and NIELIT Agartala Centre.

Guwahati: Till 12th December, 2018, NIELIT Guwahati and its Extension Centres have trained 6220 Assam Government Employees. NIELIT Guwahati added 5 additional locations by hiring training infrastructure at Silapathar (Dhemaji District), Biswanath Chariali (Biswaath District), Dhubri (Dhubri District), Barpeta (Barpeta District) and Sivasagar (Sivasagar District) in order to widespread the training across the State of Assam. In these hired locations, the trainings are imparted by NIELIT Faculties under supervision of the nearest EC of NIELIT Guwahati.

Imphal: 549 state government personnel from different state Government Department have been trained in the 14-days training. Under MDoNER. The Valedictory and Certificate distribution function of the 22nd batch was held on 8th November, 2018. Shri Th. Prameshwor Singh, Executive Director, NIELIT Imphal; Shri R. K. Bigensana Singh, Scientist-D, NIELIT, Churachandpur Extension Centre and Smt W. Monita Devi, Scientist-C, NIELIT Imphal graced the function.

Kohima: Around 150 government officials have been trained so far from various departments in Nagaland.

Shillong: NIELIT Shillong has been providing training under the MDoNER project. More than 400 State Government Employees have been trained under this scheme from various departments like Meghalaya Police, Planning Department, Soil & Water conservation, Animal & Husbandry, Veterinary, Sericulture & Weaving Dept, Water resources Dept, Office of the Deputy Commissioner of multiple districts, Power Deptt., Law Deptt., Tourism Deptt., Home Passport Deptt.,
The program was initially started at Shillong in East Khasi Hills District and later on replicated at other districts like West Jaintia Hills district in Jowai, West Garo Hills district in Tura and South West Khasi Hills in Mawkyrwat. The Capacity building program was well received as per positive feedback of participants.

**e–WASTE MANAGEMENT WORKSHOP FOR GOV'T. OFFICIALS**

NIELIT is implementing a project entitled “Capacity Building of Government employees on e-Waste Management under Digital India” in 29 states/UTs. The objective of training Government employees is to take steps ensuring e-Waste disposal in their respective departments in a proper manner which shall protect environment as well as human health from toxic materials contained in them.

**Calicut:** One day Awareness Workshop on e–Waste Management for Government officials was organized by NIELIT Calicut on October 30, 2018 at District Planning Secretariat, Civil Station, Kozhikode. Smt. M.S. Sheeba, Chief Environmental Engineer (CEE), Kerala State Pollution Control Board (KSPCB); Shri Pratap Kumar S, Additional Director, NIELIT Calicut and Shri Prakash, E-waste Coordinator, Haritha Kerala Mission participated in the inauguration function. 103 officials from various government departments including officials from Kerala State Pollution Control Board participated in the workshop.

In another event, a three day workshop on e-Waste Awareness was organized in association with Center for e-Governance (CEG), Government of Karnataka during November 28-30, 2018 at Mysore. 33 officials from various government departments including officials from Karnataka State Pollution Control Board participated in the workshop.

**Chennai:** NIELIT Chennai has been providing training to Government Employees from various departments under e-Waste Management project. NIELIT Chennai has trained 180 govt. officials in Andhra Pradesh and 298 govt. officials in the state of Tamil Nadu.

**Jammu:** Jammu in association with Jammu State Pollution Control Board (SPCB) conducted a 03-Day training program on e-Waste Management and Disposal for the officials of State Government during 10th-12th December, 2018 at NIELIT, Jammu.

**Agartala:** First batch of Five days intensive Training Course on Library Automation System for the Library Professionals and students was conducted by NIELIT Agartala during 26-30th November, 2018.

**Training Program on IT for Government of Kerala**

**Calicut:** NIELIT Calicut in association with Kerala State IT Mission (KSITM) conducted two days training each in Ubuntu, Open Office and Malayalam Computing for the second batch of 29 Kerala Government Employees at NIELIT Calicut during 22nd to 25th October, 2018. The course on Ubuntu and Open Office covered the concepts and features of Ubuntu, usage of open office - writer, calc and impress. The course on Malayalam Computing covered unicode, Malayalam fonts, creating, editing and retrieving documents in Malayalam in computer and over Internet. The courses were well received by the participants.
### CAPACITY BUILDING OF CWC OFFICIALS

**Chandigarh**: A 2 Day Training in Computer Fundamentals and Internet was conducted at NIELIT Chandigarh for CWC (Central Warehousing Corporation) employees. Total 25 candidates were trained in the first batch. Another 26 employees were trained in the second batch of training.

### CAPACITY BUILDING OF EX. SERVICEMEN

**Chandigarh**: Training in NSQF aligned course, namely ‘Certified Multimedia Developer’ commenced in December, 2018 for 27 officials from Army, Navy, Air Force sponsored by Directorate General of Resettlement (DGR) New Delhi.

### SKILL DEVELOPMENT IN ESDM SECTOR

**Chennai**: To create a policy framework for a conducive ecosystem for promoting investment in ESDM Sector in the country, several initiatives have been taken by Ministry of Electronics & Information Technology (MeitY). Skill Development in ESDM is one such scheme which aims at facilitating skill development in ESDM sector focusing on students/ unemployed youth at 9th -10th standard onwards, ITI, Diploma, engineering graduates (as per amended guidelines), etc. to increase their employability to work in ‘Manufacturing’ and ‘Service support’ functions. NIELIT is the Implementing Agency and the Programme Management Unit (PMU) on behalf of MeitY for the implementation of this scheme. Under the scheme, NIELIT Chennai has conducted training in 3 States and 2 UTs namely. The training details are as under:

<table>
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<th>State/s</th>
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<tr>
<td>Andhra Pradesh</td>
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<td>19</td>
</tr>
<tr>
<td>Andaman &amp; Nicobar Islands</td>
<td>38</td>
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</table>

### ELECTRONICS PRODUCT DESIGN AND PRODUCTION TECHNOLOGY (EPDPT)

**Chennai**: MeitY has entrusted NIELIT for implementing a project titled ‘Capacity building in the areas of Electronics Product Design and Production Technology (EPDPT)’ with the objective to develop human resource at various levels including Certificate, Diploma, Post Graduate and Research Professionals with adequate competence levels. Under EPDPT, NIELIT Chennai has so far successfully trained 4179 candidates. NIELIT Chennai, is conducting courses in the fields of Automotive Electronics, Embedded Systems and Internet of Things (IoT) in collaboration with Engineering colleges. These courses are specially designed in modular fashion so that the candidates trained become familiar with Serial & Automotive Protocols and its debugging skill and be able to design any Embedded System (H/w or S/w or both) based on different families and architectures of Embedded System tools such as Microcontrollers, ARM Processors for Automotive Application.

**Chennai**: The Centre is also conducting 6 Months (840 Hours) course on PG Diploma in Data Science and Analytics starting from 26th October, 2018. In this course, candidates will be trained on System Administration under Linux Operating System & Shell Programming; Data Analytics; Data Storage Technique & Data Warehousing using MySQL; Object Oriented Programming-Java & Python; Big Data Technology using Hadoop and Spark; Mini Project (Implementation of Data Analytics)
As a generous and symbolic gesture to the people of Nagaland, India’s former Prime Minister, Late Shri Atal Bihari Vajpayee announced the setting up of NIELIT Kohima during his maiden visit to Nagaland in October 2003. Ever since its inception, NIELIT Kohima strove to provide quality education in IECT and has been aptly declared as a ‘Centre of Excellence & Institution Partner’ by the Government of Nagaland. Nestled among gently rolling hills and tranquil ambience, it has state-of-the-art facilities and infrastructure that facilitates excellence in IECT related teaching, training and other professional activities and also undertakes R&D work, consultancy services and software development. It is persistently exploring possibilities of collaboration with organizations in govt., public and private sectors and also academic institutions and strives to inspire, connect and catalyze impact.

Director-In-charge : Shri L. Lanuwapang
Address : New High Court Road, Meriema, Kohima, Nagaland
Contact Details : 9436215243, twitter: @KHM_NIELIT, facebook: @KHM.NIELIT
Extension Centre : NIELIT Chuchuyimlang

AREAS OF EXCELLENCE
◆ Cyber Security
◆ Cyber Forensics
◆ Medical Electronics

COURSES OFFERED
SHORT TERM COURSES:
◆ Diploma in Computer Application & Networking
◆ Diploma in Bio Medical Instrumentation & Maintenance
◆ Information Security & Cyber Law
◆ Certified Android App Developer
◆ ITEs & Soft Skills
◆ Mobile Handset Repairing- Level 2
◆ Embedded System
◆ Graphic Designing / Audio & Video Editing
◆ Course on Computer Concepts / Basic Computer Course
◆ PC Assembly & Maintenance
◆ Internet & Webpage Designing
◆ Course on Programming language like C, C++, Java, VB, C#, Oracle, Python

LONG TERM COURSES:
◆ BCA affiliated with Nagaland University
◆ Diploma in Computer Science & Engineering affiliated with State Council of Technical Education
◆ O/A/CHM-O/CHM-A/MAT-O Level

CAPACITY BUILDING OF GOVERNMENT EMPLOYEES FOR MINISTRY OF DoNER

◆ Under Capacity Building of technical assistance scheme of Ministry of DoNER, 275 govt. employees from 42 departments have been trained in IT & Digital services including GST and digital payments.
**NIELIT Chuchuyimlang**

The Rural Extension Centre of NIELIT Kohima was established at Chuchuyimlang in 2006 in collaboration with Nagaland Gandhi Ashram Chuchuyimlangin Mokokchung district, Nagaland. With a built-up space of about 4687 sq.ft., it maintains a learner-centric environment with the objective of providing I.T. literacy courses among the rural youth in and around the district. Self-contained campus with academic cum admin building and hostels are under construction, under the North East Capacity Building project of MeitY, Govt. of India.

**HIGHLIGHTS & ACHIEVEMENTS**

**Cyber Forensics: R&D and Training Facilities:** The first of its kind in Nagaland, State-of-the-Art Cyber Forensics R&D Lab and Training Facilities has been setup at NIELIT Kohima. It serves as the resource Centre for NE region imparting training and forensics analysis services to the law enforcement agencies and forensic examiner. So far, more than 500 LEAs/forensic examiners are trained in digital forensics and IT Act and total 80 cyber crime cases have been analyzed to extract digital evidences to help in solving the cases.

- **Cybercrime Case Management System** has been developed and deployed for management of cases. The System makes available information details regarding case details, status, types and number of exhibits, IO details, etc.

- **Centre of Excellence for Cyber Forensics:** In recognition of the successful implementation of the projects and expertise available at NIELIT Kohima, Govt. of India has highlighted in the “Digital North East Vision 2022” document, that existing cyber forensics lab will be upgraded with funding support from MeitY to a Centre of Excellence (CoE) for Cyber forensics in the NER and a dedicated training facility of 50 seats would be established. The CoE will also facilitate Training of Trainers.

- **Medical Electronics Lab and Training Facilities:** Medical Electronics Lab equipped with latest equipments is set up for providing repair and maintenance services of medical electronics equipment of hospitals in Nagaland. Training has been provided to State govt. paramedical staff and local youth. 21 students were employed through campus placement and posted in different locations across the state. Setup of such facility, downtime of biomedical equipment has reduced and improved the medical services in the State. Further, MoU was signed with Faber Sindoori Management Services Pvt. Ltd, Chennai, a leading company in biomedical engineering industry for exchange of knowledge and for industrial exposure of the students and youth of the NE region.

- **Skill Training to underprivileged ST youths and women under IT for masses project:** Focus to empower underprivileged sections of the society and provide better livelihood opportunities, training centres were set up for the first time in the four backward districts: Mon, Tuensang, Longleng and Kiphire for training in IT, digital marketing and soft skills. In addition, it has helped streamline the untapped potential especially school drop-outs and women. The vision of the project is to ensure that the targeted trainees particularly the underprivileged youth embraces technological advancement to stay ahead. So far, 683 males and 724 females have been trained.

- **Cyber Security Project:** Training and awareness programmes conducted for Govt. employees, school, college students in which more than 6,000 people were trained. Extensive public awareness on cyber security spread through AIR, print media, social networking sites and Talk Show on DDX and “Cyber Security Handbook” translated in local languages were circulated.

- **E-Governance Project:** Sensitization workshops/trainings imparted to all district HQs covering 600+ State Govt. employees and 2548+ students. Field visits were also arranged for exposure to e-Gov infrastructure like SWAN, State Data Centre (SDC) etc.

- **Developed Smart Pension Software** for Comptroller Auditor General of India, Kohima.

- **Skill Knowledge Provider** to Polytechnic Colleges in Nagaland under Technical Education Dept. for implementation of AICTE community college schemes.

- **Conducted Computer Proficiency Examination** for recruitment to the posts of LDA/Computer Operators, Call Centre Operators for State Govt. Departments.

- **Signed MoU with Industries & Commerce Department, Govt. of Nagaland:** MoU signed with the department for capacity building and skilling of youth in IECT in line with the Digital India vision and to evolve as a collaborative training centre through setting up of a sub-centre at Dimapur, commercial hub of the State.
**Quarterly Newsletter**

**SCSP/TSP SCHEME**

**Delhi:** NIELIT Delhi is implementing a scheme titled ‘Scheduled Caste Sub Plan (SCSP) for Scheduled Castes and Tribal Sub-Plan (TSP) for Scheduled Tribes’ sponsored by MeitY. In this scheme, no fee is charged from the SC/ST candidates for educational and skill development programmes. In the 2018-19 session, a total of 437 students have been benefitted in which 419 students are enrolled under SCSP scheme and 18 students are enrolled under TSP scheme.

**SKILL AUGMENTATION FOR DIRECTORATE GENERAL RESETTLEMENT EMPLOYEES**

**Delhi:** The Directorate General Resettlement (DGR) is an inter service organization functioning directly under Department of Ex-serviceman Welfare, Ministry of Defense. DGR helps Ex-Serviceman to train and acquire additional skills and facilitate their resettlement through a second career.

NIELIT Delhi centre has successfully completed a batch of training of NIELIT “CERTIFIED MULTIMEDIA DEVELOPER”, sponsored by Directorate General Resettlement. The training was conducted from 6th August, 2018 to 26th October, 2018 for a batch of 39 Candidates. The centralized examination and practical exam were conducted successfully. Shri Shameem Khan, Director Incharge, NIELIT Delhi awarded participation certificates to all candidates and felicitated them for the successfull completion of their training.

**PMGDISHA PROGRAMME**

**Guwahati:** The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) is aimed to empower the citizens of rural areas by training them to operate computer or digital access devices. It is a dynamic and integrated platform of digital literacy awareness, education and capacity programmes that will help rural communities fully participate in the global digital economy. Various agencies are involved in training, examination and certification of assessment of candidates under PMGDISHA programme. NIELIT is one of the certifying agency of PMGDISHA scheme and as a part of that, NIELIT Guwahati is regularly conducting online examination for the beneficiaries from Assam and Meghalaya. So far examinations of about 1.2 lakh candidates have been conducted by NIELIT Guwahati.

**TRAINING UNDER ISEA PROJECT PHASE II**

**Kohima:** As part of ISEA Programme initiated by the Government of India, NIELIT Kohima is conducting continuous training for school and college students and also for government officials. So far, 150 officials and 700 students and teachers have been trained.

**SKILL ENHANCEMENT PROGRAMME UNDER MUKHYAMANTRI SHRAM SHAKTI YOJANA**

**Patna:** NIELIT Patna is conducting various IT Courses for candidates from minority community under the project “Mukhya Mantri Shram Shakti Yojana” sponsored by Minority Welfare Department, Govt. of Bihar. This is free of cost Skill Enhancement program for minority candidates. After completion of this course, the candidates are expected to use their skill to get employability.

**SC/ST JOBSEEKERS TRAINING**

**Delhi:** Directorate General of Employment, Ministry of Labour and Employment, GoI, has entrusted NIELIT with the responsibility of imparting training to SC/ST jobseekers registered with Employment Exchanges. Under the Scheme, NIELIT is imparting one year training in NIELIT ‘O’ level course in IT and CHM-O Level Hardware and Maintenance course. A total of 50 SC/ST jobseekers have enrolled for O Level IT Course and another 25 SC/ST Jobseekers have enrolled for CHM O Course in the year 2018-19.

**CYBER SHIKSHA FOR WOMEN**

**Patna:** NIELIT Patna is providing training to 19 girls under the project Cyber Shiksha for Women. Data Security Council of India (DSCI) and Microsoft in association with ISEA of Ministry of Electronics & IT (MeitY) have launched the Project Cyber Shiksha for skilling women engineering graduates in the niche field of Cyber Security. The Cyber Shiksha for Women scheme is sponsored by Microsoft under their CSR activity.
**MOBILE APPLICATION DEVELOPMENT USING ANDROID**

**Agartala:** Industrial Training on “Course in Mobile Application Development using Android”, third batch started at NIELIT Agartala on 03/07/2018. Total 20 engineering students from Techno India College, Agartala joined the training course.

**TRAINING ON MICROPROCESSOR**

**Agartala:** Industrial Training on “8085/8086 Microprocessor and Assembly Language” started at NIELIT Agartala on 11/Jul/2018. Total 11 engineering students from Techno India College, Agartala joined the training course.

**TRAINING ON INDUSTRIAL DRIVES AND ROBOTICS**

**Calicut:** NIELIT Calicut has conducted a 1 week training on ‘Industrial Drives and Robotics’ for Kautex - India, A Division of Textron India Private Limited. 4 Officials from Kautex India has participated in the program. Shri Pratap Kumar S, Scientist/Engineer ‘E’; Shri Mohan C’ Scientist/Engineer ‘D’; Shri Ishant Kumar Bajpai Scientist/Engineer ‘C’; Shri Ramesh Kumar M S, Senior Technical Officer and Shri Manoj Kumar MK, Senior Technical Officer have acted as resource persons for the training. Practical sessions on Embedded Programming, Industrial Drive and Robot Task Programming were the salient feature of the program.

**DIGITAL LITERACY COURSE FOR NURSES**

**Chandigarh:** More than 1300 Nurses were trained in Digital Literacy Courses (DLC) – Awareness in Computer Concept (ACC) by NIELIT Chandigarh. Government Medical College has made DLC of NIELIT mandatory for recruitment of Staff Nurses in their hospital.

**TRAINING ON SCILAB AND TALLY WITH GST**

**Guwahati:** A one week/10 hours training program on SciLAB for students of 3rd and 5th Semester, BSc. (Physics) of J.B. College, Jorhat was conducted during the month of October 2018 under NIELIT Jorhat Extension Centre. Also, a one month /30 hours training program on Tally with GST for 5th Semester students of Commerce Department of J.B College, Jorhat was conducted from 12th September 2018 to 27th October 2018. A total of 73 students participated in the training programs in two groups.

**INAUGURATION OF PG COURSE-MSC(IT) UNDER MANIPUR UNIVERSITY**

**Imphal:** Launching event of PG Course- MSc (IT) under Manipur University was graced by Prof. R.K. Hemakumar Singh, Principal, Manipur Institute of Technology; Shri O. Imocha Singh, HoD, Deptt. of Computer Science, Manipur University and Shri Th. Prameshwor Singh, Executive Director, NIELIT Imphal as the Chief Guest, the Guest of Honour and the President respectively. The event was held on 29th October, 2018 at NIELIT Imphal. Forty (40) students enrolled for the said course.
TRAINING ON INTERNET CONCEPTS FOR CWC EMPLOYEES

Patna: NIELIT Patna conducted two days training programme on “Fundamental of Computer and Internet Concepts” for the employees of Central Warehousing Corporation (CWC) from 13th October to 14th October, 2018. During the 02 days training, the topics were covered in an efficient manner and the queries of participating employees were also addressed effectively. The training program was successfully completed and certificates were distributed by Shri Alok Tripathi, Director In-charge of NIELIT Patna.

TYPING TEST FOR J&K SCHOOL EDUCATION BOARD

Jammu: A Computer based Typing Test was conducted by NIELIT Jammu for the internal employees of J&K Board of School Education (JKBOSE) on 11th December, 2018. Around 22 candidates appeared in the test. Similarly, another test was conducted on 14th December, 2018 for recruiting Junior Assistants in Ladakh Autonomous Hill Development Council. Around 280 candidates from Ladakh region appeared in the test.

DATA ANALYTICS AND MACHINE LEARNING

Jammu: An expert lecture was organized at NIELIT Srinagar on the topic, ‘Data Analytics and Machine Learning’ by Shri Mamoon Rashid, Assistant Professor, Department of Computer Sciences & Engineering, Lovely Professional University, Jalandhar on 9th November, 2018. The lecture was attended by MCA 5th and 3rd semester students and faculty members of NIELIT.

SURYAMITRA

Kolkata: NIELIT Kolkata has started a Skill Development course of 600 hours duration on Solar Technologies/PV Installer under Suryamitra Project. In the first batch, 30 candidates sponsored by Ministry of New & Renewable Energy, Govt. of India are being trained.

CORPORATE TRAINING PROGRAMME FOR CENTRAL WAREHOUSING CORPORATION

Kolkata: Two days Training on “Computer Fundamentals and Internet Concepts” for the Officials of Central Warehousing Corporation has been started from 27th December, 2018 at NIELIT Kolkata.

SKILLING OF TEACHERS IN CYBER SECURITY

Patna: 03 days Master Training Program on Cyber Security to PGT Teacher of Kendriya Vidyalaya, Bihar Region was organized by NIELIT Patna from 4th to 6th October, 2018. It was inaugurated by Mrs. Soma Ghosh, Asst. Commissioner of KVS Patna. Total 48 PGT Teachers from 48 Kendriya Vidyalaya Schools attended the Course.
Calicut: Model Career Centre at NIELIT Calicut organized a technical job fair on 22nd December, 2018 at Kerala Government Polytechnic College, Kozhikode. The program was inaugurated by Shri Seeram Sambasiva Rao, District Collector, Kozhikode in a function presided by Dr. M.P. Pillai, Executive Director, NIELIT Calicut in the presence of Shri Rajeevan K.P, Principal, Kerala Government Polytechnic College, Kozhikode and other dignitaries from Industry.

Unique and first of its kind in the state, this technical job fair is funded by the Model Career Centre (A project of Directorate General of Employment, Ministry of Labour and Employment, Govt. of India) wherein the candidates were pre-screened and provided training in soft skills and technical aptitude before the job fair to enhance their employability.

A total of 852 pre-screened engineering graduates from NIELIT as well as various professional colleges in and around Calicut attended the program to compete for jobs floated by 30+ Technical Companies in various domains like IT, Electronics, Automation etc. Major companies which participated includes Nucore, IOS, Babte, Sesame, Limenzy, Mozilor, Capce, Polosys, fayzak, flyingloop, IPCS Digital, IPIX, Symptots, Mindster, MNM, Niranjan Ultraosund India, Webloop, Winnova, Xpertcube, yarddiant, MIDNAY, D&D Solutions, Cybrosys, Magnifiez Technologies, Zifog Code Labs, Actionfi etc.

At the end of the job fair, 193 candidates were shortlisted by the companies including 28 candidates from various NIELIT courses.

Imphal: One day Placement Drive was conducted by Shri R. Sriramachandran, HR, TCS, Recruitment Team, Chennai for Tata Consultancy Services job roles. The 1st batch of “100 Hours Free Employability Training” certified candidates at MCC NIELIT Imphal took part in the drive. 10 candidates got selected out of 27 candidates who participated in the Interview process consisting of 4 (four) qualifying rounds.

Srinagar: Model Career Centre, NIELIT Srinagar organized placement drive to hire IT Professionals for UNOSIS IT Solutions Pvt. Ltd, Srinagar for the posts of Technical Support Specialists and Diagnostic Technical Support (Sales). Around 145 candidates registered and appeared in interview, 38 candidates were shortlisted and 20 candidates were selected. Out of 20 candidates, 10 candidates were selected for the post of Technical Support Specialists and 10 candidates were selected for the post of Diagnostic Technical Support on November 26, 2018 at Model Career Centre, NIELIT J&K, SIDCO Electronics Complex, Rangreth, Srinagar.
BUILDING CONSTRUCTION OF NIELIT CENTRE/ EXTENSION CENTRES IN NORTH EAST

**Churachandpur Extension Centre:** Approximately 60% of the construction work is completed.

![Churachandpur Extension Centre](image)

**Imphal:** Approximately 90% of the construction work is completed of the new Admin & Academic Block of NIELIT Imphal.

![New Academic Block of NIELIT Imphal](image)

**Senapati Extension Centre:** Approximately 50% of the construction work is completed.

![Ladies Hostel at NIELIT Senapati site](image)

**Chuchuyimlang:** 75% of the construction of building is completed. During April-November, 2018 259 students have been trained at the Centre and revenue generated from April 2018 - November, 2018 is Rs. 9,06,500.

![Administrative Block at NIELIT Senapati site](image)

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**NIELIT IS NOW ISO 9001:2015**

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**MoUs/AGREEMENTS/JOINT COLLABORATIONS**

**MoU SIGNED WITH JOBSENZ PVT. LTD.**

![MoU Signing](image)

**Imphal:** NIELIT Imphal signed a Memorandum of Understanding (MoU) with Jobsenz Private Limited, a Singapore-based Company and incubated Startup of Facebook and NASSCOM. The MoU was signed at NIELIT Imphal on 10th November, 2018 with the objective of setting up of NIELIT-Jobsenz Technology Incubation Centre at NIELIT Imphal. The agreement was signed by Shri Th. Prameshwar Singh, ED, NIELIT Imphal and Shri Monish Karam, CEO, Jobsenz Pvt Ltd. for a term of two years.
Digital transformation is a process of reforming business activities, business processes, competencies and business strategies by using digital technologies. A business process is a set of interrelated activities designed to achieve a business goal. The business process provides a value to customers. Digital transformation helps organizations to keep pace with ever growing and changing demands of their clients. Digital transformation is basically reinventing most of things like capacity building of employees, defining efficient workflow and improving interactions with stakeholders etc. In the digital transformation, smart devices play major role.

Smart devices are gaining momentum because of their capabilities like recognizing voice, identifying patterns, interacting with physical world and helping in learning from environment. These devices support applications to process large volume of data varying from structured to unstructured types. Due to changes in the way the organizations are doing business with use of technology, the organizations are said to be digitally transformed. Uber, Netflix, Alibaba, Facebook are few companies to name who have already transformed their business processes fully digital. Uber is world’s largest taxi company but owns no taxi and Netflix is the largest movie house but owns no cinema.

Huge investment is required for setting up infrastructure physically to adopt rapidly changing technologies in the area of electronics and information technology which is a hindrance in its adoption especially for small and medium scale organizations. Such organizations look for alternatives which can reduce their capital investments involved in purchasing and maintaining IT hardware and software. Cloud computing or simply Cloud becomes a natural and ideal choice for such organizations. Cloud takes benefit of many technologies such as server consolidation, huge and faster storage, grid computing and virtualization. Cloud service provider provides the services on pay-per-use on demand. The popular service models are Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS). Scalability, elasticity, on-demand, self service and broad network access are some of the major characteristics of Cloud. In this way Cloud becomes key enabler for digital transformation. Apart from Cloud, there are other digital technologies which are required for digital transformation. Organizations draw benefits if such technologies are deployed on cloud. Some of the technologies that help in digital transformation and can be combined with cloud as cost effective solution are shown as follows.

1. **Big Data Analytics:** In recent years, the web and mobile applications like Facebook, Whatsapp, Twitter and YouTube are continuously generating large data and that too of different varieties. Majority of data generated is of unstructured or semi structured in nature. Such data is analyzed in real time mode as well as batch mode. The analyzed data helps in making business decisions. Big data is often talked about its volume, velocity, variety, veracity and value characteristics. The data is too huge to be processed by a single computer. Big data analytics need technologies that are highly scalable, highly available, cluster supportive and cost effective. Cloud provides infrastructure for processing and analysing huge data. The organizations are benefited with the combination of both.

2. **Artificial Intelligence:** According to John McCarthy, the father of Artificial Intelligence, Artificial Intelligence (AI) is the science and engineering of making intelligent machines, especially intelligent computer programs. The main aim of AI is to implement human intelligence in machine. AI is a convergence of technologies and is well suited to provide innovative forms of doing business and business process re-engineering. AI can be embedded into business processes where intelligent agents (software), part of automated solutions, drive...
business processes. AI is considered as job killer, however, it is creating more jobs because organizations are requiring more skilled worker who can maintain AI based applications. Applications of AI like machine learning and deep learning enhance the capability of systems to learn and improve from experiences gained from dynamic environment. AI is much talked technology these days because of integration of data, cloud and intelligent algorithms. The modern applications take these three factors in consideration. The servers of cloud computing hold data while AI applications use this data for decision making, learning and analysing purpose in distributed environment.

3. **Internet of Things:** Kevin Ashton introduced the term Internet of Things (IoT). The term ‘things’ refer to any object on the face of earth, whether it is a communicating device or a non-communicating object. From smart device to a tree, anything can be part of Internet. The objects are nodes that communicate with each other over Internet through data communication channels like RFID (Radio Frequency Identification) tags. In a survey conducted by KRC Research, it is observed that 37% devices will be home appliances, 25% smart meters, 13% wearable devices and remaining in other categories. It is further expected that number of connected devices will exceed 1 trillion mark by 2025. Due to increase in number of connected devices, the data size also increases. More data leads to more processing. To store and process such data locally is not viable option. All this is possible with help of Cloud computing. IoT and Cloud computing together are introducing a new concept named Cloud of Things (CoT). The major applications of IoT are smart homes, industrial Internet, smart cities, retail, energy management, healthcare and farming.

4. **Robotic Process Automation:** Robotic Process Automation (RPA) is a business process automation technology. RPA is based on three main categories: screen scrapping, workflow automation and artificial intelligence. Screen scrapping is the process of collecting display data from legacy applications. The purpose of workflow automation is to automate repetitive task which results in increase in speed, efficiency and accuracy. Adding to this, artificial intelligence replaces the tasks which demand human intervention and intelligence. Many AI applications are already using Cloud. Moreover, RPA specialist Blue Prism has announced to offer AI, machine learning and data analytics tools powered by Google Cloud to its customers.

5. **Mobile Technology:** Mobile technology has changed the way people communicate, work and shop. Mobile technology has taken the business world by storm. Use of mobile technology in business has resulted in improved relationship between organization and customer, gaining customer experience, enhancing collaboration with colleagues, optimizing business operations and improving marketing strategy. Social media platforms such as Twitter and Facebook are using mobile technology heavily to reach its users, interact with them and target them. Based on Social, Mobile, Analytics and Cloud terminology, a new term is emerged known as SMAC. The convergence of these technologies is transforming businesses and creating entirely new business models for service providers. Again SMAC uses Cloud.

6. **Blockchain:** Blockchain is a decentralized transaction and data management technology developed first time for Bitcoin crypto-currency. Blockchain is also a distributed database solution that maintains a continuously growing list of data records. The data records are confirmed by the nodes participating in it. The data is recorded in a public ledger including information of every transaction ever completed and shared with all available nodes. The main application areas of Blockchain are financial services, smart property and smart contracts. Cloud computing is centralized control system while Blockchain is distributed in nature. Blockchain is making an attempt to eliminate the need of centralized control in Cloud. In other way, Blockchain is Cloud 2.0. Some cloud service providers like Amazon, R3, SAP, and Microsoft are already offering ‘Blockchain as-a-Service’ with preconfigured Blockchain setup.

Apart from above mentioned technologies, there are few more technologies like virtual reality those work efficiently if deployed on Cloud. So, Cloud, without doubt, is key enabler for digital transformation. Organizations are facing challenges like existing operational legacy systems, organizational culture and adoption of latest technologies from time to time. Despite challenges, the business leaders are not arguing on Cloud in digital transformation but are using it.

Dr. Manish Arora
Scientist ‘E’
NIELIT Chandigarh
CULTURAL ACTIVITIES

ESSAY COMPETITION ON ERADICATE CORRUPTION - BUILD A NEW INDIA

Agartala: The students of NIELIT Agartala presented a plethora of cultural programme in a glittering event held in collaboration with the Art of Living. Shri Ratan Chakraborty, Hon’ble Member of Legislative Assembly of Tripura, Chief Guest of the event distributed prizes to the participants.

Chandigarh: During the vigilance awareness week, students of NIELIT Chandigarh participated in an essay competition and poster making on 31st October, 2018.

Diwali Celebration

Delhi: The festival of light- Diwali, came alive at NIELIT Delhi as the entire Centre wore a festive look. The occasion of Diwali was celebrated with full enthusiasm and various events like Presentation Making, Poster Making using multimedia softwares, Diya Decoration and Rangoli Making were organized in which students from all batches participated vigorously. Ms. Kanchan Rani, Joint Director, NIELIT enlightened the students about the festival and advised them to celebrate it in an eco-friendly manner.

Imphal: An Essay Competition on the theme “Eradicate Corruption - Build a New India” in connection with Vigilance Awareness Week, 2018 organised by NIELIT Imphal in collaboration with Bank of India was held on 2nd November, 2018 at NIELIT Imphal in the presence of Shri Laishram Shyamjit Singh, Scientist-F, NIC, Manipur; Shri Haobijam Umesh Singh, Sr. Branch Manager, Bank of India, Imphal Branch; Shri Th. Prameshwor Singh, Executive Director, NIELIT Imphal and Shri Y. Subhaschandra Singh, Addl. Director, NIELIT Imphal. A total of 25 employees participated in the competition.

SWACHHTA PLEDGE

Delhi: A pledge taking ceremony was held on 10th October, 2018 where all the staff and students of NIELIT Delhi, took pledge to maintain cleanliness and encourage others to keep their surroundings clean. A Poster Making activity was also organized on this occasion.

Celebration of Annual Sports Day

Guwahati: Shri K. Baruah, Director, NIELIT Guwahati inaugurated the 2nd Annual Sports and Cultural Meet of NIELIT Guwahati on 21st November 2018, which included various competitions like Cricket, Badminton, Essay Writing, Poster Making and Quiz for faculty members and students. The sports events were conducted in the Indoor and Outdoor facility of Gauhati University on 21st and 23rd November 2018.

Celebration of Rashtriya Ekta Diwas

As a special occasion to foster and reinforce our dedication to strengthen unity, integrity and security of the nation, Rashtriya Ekta Diwas (National Unity Day) was celebrated at NIELIT Centres on 31st October, 2018 to commemorate the birth anniversary of Sardar Vallabhbhai Patel by taking a pledge.
**NIELIT IMPHAL CELEBRATED FOUNDATION DAY**

**Imphal:** 30th Foundation Day Celebration cum Freshers’ Meet was held on 1st and 2nd October, 2018 which was graced by Prof. L. Tombi Singh, Vice Chancellor (M.T.U); Prof. R. K. Hemakumar Singh, Principal (MIT); Shri Th. Surendranath Singh, Director (MASTEC); Prof. N. Rajmuhon Singh, Dean (Mathematical Science M.U.); Shri H. Kulachandra Singh, D.I.G. Police Telecom; Shri Kh. Rajen Singh, SIO, NIC Manipur; Shri E. Ibocha Singh, Director, Science & Technology and Shri Th. Prameshwar Singh, Executive Director, NIELIT Imphal. During the occasion Pena (Yakairol) was presented by Shri Homendro Singh and Cultural Dance performed by the students of NIELIT Imphal.

**Guwahati:** Dr. Saurov Mahanta, Senior Technical Officer of NIELIT Guwahati has been awarded the Degree of Doctor of Philosophy by Gauhati University in November 2018, for his thesis entitled “In silico Prospecting of Biomolecules for Detection of Highly Efficient Anti-tubercular Agents”. Dr. Mahanta is responsible for training and related research in the area of Bioinformatics at NIELIT Guwahati and assisted the Centre in organising many IT programmes as well as College Teachers’ Training programme in Computational Biology and Bioinformatics.

**Kohima:** With a view to foster and reinforce the spirit of communal harmony, NIELIT Kohima along with the rest of the country observed the National Integration Week from November 19-25, 2018. Seminars/Talks were organized by the faculties/students on various themes during the weeklong celebration.

**ESSAY COMPETITION**

An English essay competition on the topic of ‘Anger Management during Road-rage’ was held on 14th November, 2018 at NIELIT Kolkata and Chennai.

**EMPLOYEE CORNER**

**PROMOTIONS IN NIELIT**

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<tr>
<th>#</th>
<th>Name / Designation</th>
<th>Promoted to</th>
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<tbody>
<tr>
<td>1.</td>
<td>Sh. Ardhendu Das, Joint Director (F&amp;A), NIELIT Kolkata</td>
<td>Additional Director (F&amp;A)</td>
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<tr>
<td>2.</td>
<td>Ms. Kiran Bala, Joint Director (Admn.), NIELIT Chandigarh</td>
<td>Additional Director (Admn.)</td>
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<td>3.</td>
<td>Sh. Himanish Roy, Joint Director (Fin.), NIELIT HQ</td>
<td>Additional Director (Fin)</td>
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<td>4.</td>
<td>Sh. Ashok Verma, Deputy Director (Admn.), NIELIT HQ</td>
<td>Joint Director (Admn.)</td>
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<td>5.</td>
<td>Sh. C. Vanlalnunga, Deputy Director (Fin.) NIELIT Aizawl</td>
<td>Joint Director (Fin.)</td>
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<td>6.</td>
<td>Sh. G. Bhaskar, Deputy Director (Admn.), NIELIT HQ</td>
<td>Joint Director (Admn.)</td>
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<td>7.</td>
<td>Ms. V.S. Jahagirdar, Sr. Technical Officer, NIELIT Aurangabad</td>
<td>Principal Technical Officer</td>
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<td>8.</td>
<td>Shri Toijam Rajendro Singh, Finance Officer, NIELIT Itanagar</td>
<td>Asstt. Director (Fin.)</td>
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<tr>
<td>9.</td>
<td>Ms. Rumi Dutta, Administrative Officer, NIELIT Agartala</td>
<td>Asstt. Director (Admn.)</td>
</tr>
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</table>

**DOCTORATE DEGREE CONFERRED TO NIELIT GUWAHATI EMPLOYEE**

Guwahati: The celebration of Annual Day on December 15, 2018 was not only an occasion of celebration but felicitation, feast and festivity where students presented wonderful acts/presentations and different category of awards were given for their meritorious performances. Further, Employee of the Year Award was conferred which was bagged by Ms. Moakumla, STA in recognition of her outstanding contributions. The event concluded with a thoughtful message delivered by Mr. A. Morimenba Amer, Scientist-C for the staff and students.
Celebration of Qaumi Ehta Week
EMPOWERING PEOPLE, SERVING THE NATION

FOR FEEDBACK AND SUBSCRIPTION WRITE TO US:

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Ministry of Electronics & Information Technology (MeitY)
Government of India
NIELIT Bhawan
Plot No. 3, PSP Pocket, Sector-8, Dwarka, New Delhi-110077
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Fax : 91-24363335 E-mail : newsletter@nielit.gov.in

• Suggestions for improving this newsletter are most welcome

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