

## ESDM WORKSHOP – “*e futura*” for Skill gap identification & suggestion of Courses in ESDM Sector.

**Organized by: ASAP (Additional Skill Acquisition Programme), a joint initiative of General Education and Higher Education Departments of Govt. of Kerala In association with:**

**DeitY, Ministry of Communication and Information Technology, Govt. of India and NIELIT (National Institute of Electronics & Information Technology)**

**Venue: Hotel Avenue Regent, MG Road, Kochi**

**Date: 22<sup>nd</sup> Nov, 2014 9:30 am to 4:30 pm**

### **Proceedings**

A workshop on **Skill Development in ESDM Sector** was organized by ASAP (Additional Skill Acquisition Programme) in association with DeitY, Ministry of Communication & Information Technology, Government of India and NIELIT (National Institute of Electronics and Information Technology) on 22<sup>nd</sup> November, 2014 at Hotel Avenue Regent, Kochi.

The workshop was attended by JS, DeitY and officials from NIELIT, ESSCI, TSSC ,Department of Higher Education, Government of Kerala along with delegates from Electronics and Telecom industry, Training service providers, PSUs and Academic institutions.

The workshop was divided into three segments: Inaugural Session, Panel presentations and Group discussions.

### **Inaugural session:**

The following dignitaries were on the dais:-

1. Dr. K M Abraham IAS, Additional Chief Secretary, Department of Higher Education, Govt of Kerala
2. Dr. Ajay Kumar, Joint Secretary, DeitY, Ministry of Communications & IT, GOI
3. Shri. Anantha Narayanan, Distinguished Scientist and Director, NPOL
4. Shri. M P Pillai, Director, NIELIT-Calicut
5. Shri N.K.Mohapatra, CEO, ESSC
6. Shri. A Gururaj, Ambassador, TSSC.
7. Dr M T Reju IAS ,CEO,ASAP
8. Shri George Thomas ,Additional Secretary & Team leader, ASAP

9. Smt Suseela James , Head (Technical), ASAP

The inaugural function started with a prayer song followed by a warm welcome by Dr M T Reju IAS, CEO of ASAP to the guests. He explained that the main aim of the workshop is to gain a better understanding of the challenges faced by the industry in both Electronic and Telecom arena. This in turn will help design of courses to bridge the skill gaps.

A video portraying the mission and vision of ASAP was played and it gave a clear picture of ASAP and it's functioning to the audience. Ms Suseela James, Head – Technical Division dealt with the Electronic courses run by ASAP. She explained the strategy and methods for selection of Skill Courses & Training Service providers which includes industrial workshops, PSU engagements, RFP Route, ASAP-Industry Joint Venture etc. She also gave an idea about the presently running courses and the enrolment statistics. She requested the support of ESSC and TSSC in aligning all courses to NOS, inclusion of these courses in ESDM Financial Assistance Scheme, Training and Certifying the trainers of Training Providers of ASAP ,Support for formation of Business Advisory Committees with experts from Member Companies & local Industries , Appointing one Official of SSC in Kerala, Support for Setting up of Community Skill Parks and Technical support for University Integration of courses.

Inaugural speech was given by Dr. K M Abraham IAS, Additional Chief Secretary, Higher Education Department. He told that ASAP is planning is to enhance our country's development and could be the main factor in bringing about the change for the next generations.

He specified that ASAP is evolving and for it to be sustainable and successful, support is needed from the industry. Only industry can specify the areas where they face skill gaps and where skill development initiatives have to be focused. The support of Training Service Providers also is very essential. He said that there needs to be understanding and collaboration between government and industries on a continuous basis to ensure quality of skill courses.

The Additional Chief Secretary also presented the concept of Community Skill Parks. The Community Skill Parks, with its state-of-the-art facilities, would definitely bring in revolutionary changes in the skill development domain. The Community Skill Parks shall have an average 20000 sq ft built up area in a modular fashion to ensure operational flexibility. The class rooms,

labs and the properties inside it would be able to be set and re-set for different skill courses in no time with much easiness, as the show settings are being changed in a circus tent. The circus tent model is the most efficient way of venue management. He further explained various revenue models being considered for operating the Community Skill Parks. He suggested that it is possible to develop a few of them as Electronics and Telecom Centers of Excellences. For this purpose also wholehearted support from the industry and Sector Skill Councils is a must.

He highly appreciated the support of DeitY in organizing the earlier as well as the current workshops, especially the leadership of Dr. Ajay Kumar, Joint Secretary, DeitY and the outcome of the first workshop. He expressed high confidence that the present workshop would also produce excellent results.

In the keynote address, Dr Ajay Kumar, Joint Secretary, DeitY spoke about Digital India –A program to transform India into a digitally empowered society and knowledge economy, by focusing on technology. The vision of Digital India is centered on the following three factors:

1. Digital Infrastructure as a Utility to Every Citizen
2. Governance & Services on Demand
3. Digital Empowerment of Citizens

He declared that after the first phase of the Scheme for Skill Development in ESDM sector, the second phase with a bigger financial outlay will be rolled out to attract students and unemployed youths from other disciplines to get skilled in ESDM, thereby enhancing the employability.

After his enlightening speech, a Special Address was given by Dr. M P Pillai (NIELIT). He talked about NIELIT, its functions and thrust areas.

He summarized NIELIT's role in The ESDM Financial assistance scheme as:

1. Provide training for trainers
2. Continuous evaluation and certification
3. Facilitation of the scheme and interaction with industry and state implementing agencies.

Sri Anantha Narayan, Director, NPOL also addressed the audience. He told that NPOL is the only R& D organization coming under DRDO. The key issues which he pointed out are:

- Lack of Knowledge of Electronics Engineers in Mechanical Assembly and Packaging.
- Less people coming forward in Power Electronics Sector.
- Need for Technical people with Documentation Skills
- Need for development of Interdisciplinary courses.

He suggested forming regional wise industry consortiums at 3 main centers in the state - Trivandrum, Cochin and Calicut to support the skilling activities of the state. He concluded his speech by promising full support of NPOL to ASAP.

Trends in Electronic and Telecom Industry were discussed by Shri. N.K.Mohapatra (CEO-ESSC) and Shri A Gururaj (TSSC Ambassador) respectively.

Shri Mohapatra mentioned that India is going to be youngest country in the world with 64% of population in the working age group by 2020. So, harnessing the full potential of the country's young population is beneficial for India's growth. The domestic demand for electronics industry is estimated to reach \$400 billion by 2020. Immense opportunity exists for India to become an electronic hardware manufacturing hub. There are new investment proposals in semi-conductor fabrications, telecom products, LED lighting, consumer electronics and automotive electronics. The future market focus will be on the internet of things, personal computing, wireless networking, cellular phones, automotive electronics, medical and health systems etc. He shared that NOS for 14 sub sectors and 139 qualification packs under 25 job roles have been developed by ESSC during the last 1 year. They have identified 17 training partners and are ready for the role out of ESDM skills.

Shri A Gururaj, in his presentation gave an overview of the activities of TSSC. He stated that with a subscriber base of nearly 933 million, India has the second largest telecom network in the world. Mobile based internet is a key component of Indian internet usage with 7 out of 8 users accessing internet from mobile phones. Availability of affordable smart phones is

expected to drive growth in the Indian telecom industry. The trends in the telecom industry are the Green Telecom concept, expansion to rural markets and emergence of BWA technologies such as WiMAX and LTE. He emphasized the need for boosting domestic manufacturing and the need for training. He also suggested training courses in high quality soldering, inspection guidelines, system integration and project/program management.

Vote of Thanks was proposed by Shri George Thomas, Additional Secretary and Team Leader of ASAP. He thanked all the delegates on and off the dais for their participation.

### **Panel Discussion**

The first set of Panel Discussions was moderated by Shri N K Mohapatra, CEO of ESSC. The presentors were:

1. Shri Amrit Manwani - Chairman of Sahasra group
2. Shri Madhu K G – MD, Ammini Solar Pvt Ltd
3. Shri Sindhurajan Sukumaran – Zonal Service Manager, Videocon , Kerala
4. Shri Santosh M S – Drive and Control Academy, Bosch Rexroth.

Shri Amrit Manwani briefly outlined the power demand and production figures of LED Lights. He emphasized that LED is “not just desirable, but necessary”. According to him, if LED lights are used the annual energy saving in 2020-21 will be INR 44kCr. He stated that there are around 12 large, 25 medium & 100 small manufacturers at present. Currently 5000 people are employed every year but the potential for direct & indirect employment exceeds 100-200 K. He congratulated the work done by ASAP and highlighted some of the job areas that could be taken up seriously, which included, LED Light Design Engineer, LED Light Design Validation Engineer, LED Light Mechanical Assembly operator, Luminaire Testing & Measurement Technician and LED Light Repair Technician.

The next presentation was about Solar Development and Manufacturing by Mr. Madhu K G, Managing Director of Ammini Solar Pvt. Ltd. He mentioned some of the areas of focus and the kind of courses that can be offered which included manufacturing, system design, installation and commissioning, service and maintenance and marketing and business development. His

figures drawn from the final report of CII on Human Resource Development strategies for renewable energy sector shows that by 2017 there would be around 40,000 employment requirements in On- Grid and around 1, 40,000 requirements in Off – Grid sectors. This is likely to double in the next few years.

The third presentation of the panel was by Mr. Sindhurajan Sukumaran, who is the Zonal Service Manager of Videocon. The presentation was about the scope in Consumer Electronics and he started with a video about Videocon – its early days and the role it plays in today's industry. His presentation was brief and outlined the need for skilled workers in the area of consumer electronics.

The final presentation of panel 1 was by Mr. Santhosh M S, Manager – Drive & Control Academy Bosch Rexroth India Limited about Automotive Electronics and its scope today. He expressed the view that many core industries across the globe are setting a base in India with an eye not only to harness the domestic market but also to set up a manufacturing base in India. In this process, there is a focus by these MNCs to tap the latent potential of the intellectual capital of our country.

The second set of panel presentations was moderated by Shri A Gururaj and presentations were given by the following members.

1. Dr. V P Sudeepkumar - Senior SDE , BSNL
2. Shri S Premkumar – Group Director, VSSC
3. Shri Thanuj T K – GM, SFO Technologies
4. Shri K Vijayakumar – Biomedical Engineer, HLL Lifecare

According to Dr. V P Sudeepkumar, Telecommunication is one of the fastest-growing industries in the world and India is the second-largest telecommunications market in the world. He observed that Indian telecom industry has grown from a tele-density of 0.8% in March 1991 to 78% in 2014. The telecom sector offers jobs in 3 sectors mainly – Fiber Optic Communications, Mobile Communications and Data networking. He emphasized the importance of Practical Training/ Project work, Apprenticeships and Internships in industries to get hands on experience in the relevant fields.

Shri S Prem Kumar, Group Director of VSSC, spoke on Space Electronics. According to him, there is an urgent need for skilled workers in the fields of production, documentation, product handling, storage, software areas which includes design, analysis and validation, inspection, testing and measurement and maintenance of equipments. He explained that the investment made in space technology is immense and any minute change or error in the system will result into unexpected losses.

He also said that since Space is too far away that even the tiniest of materials, and parts have to be perfect. Repairing something in space is out of question and only the ones who understand the significance of their work, and the role they play in making a project successful can be of use to the industry.

Mr Thanuj T K, the GM of SFO Technologies (Fiber Optic Division), presented on the work done by SFO technologies which is engineering manufacturing Services Company established in 1991. He explained the change of mode of transmission from copper cables to fiber optic cables and the growing demand for technicians in fiber optic technology. According to reports, he stated that there is a demand of 2, 32,000 technicians considering Indian as well as global projects. He emphasized the importance of proper training for these technicians as the lack of training is causing huge financial loss and dissatisfaction of customers in the ongoing fiber optic projects. He suggested including fiber optics as an exclusive course in all levels of education including ITI/Polytechnic, Engineering and other graduate levels.

Dr. K Vijayakumar, the course coordinator of Biomedical engineering wing of HLL LIFECARE, presented on the difficulties faced by the biomedical wing and the need of skilled technicians in maintaining the complicated and costly equipments used for diagnosis and treatments in the hospitals. He said that 60% of the biomedical equipments in government health institutions are in unserviceable condition due to lack of in-house maintenance set up. He advised that properly trained personals are needed for the maintenance of such costly equipments for its sustenance otherwise the huge amount of money spent in buying those equipments in a growing country like India will be in vain. The wide gap in the need of biomedical engineers and technicians and

their availability has to be bridged by providing sound training to biomedical / electronics technicians to maintain biomedical and electronic equipment of various specialties.

### **Group Discussions**

The delegates were divided into following three groups to discuss about the skill gaps in their areas and suggest suitable courses:

1. Consumer and medical electronics
2. LED, Solar and UPS manufacturers
3. Telecom, Defense and Space Electronics

After deliberations the groups suggested the following courses:

1. High Quality Soldering
2. Optical Fiber Technician
3. PC Hardware Networking
4. Structured Cabling
5. Mobile Tower Technician (Rigger/BTS)
6. Mobile Handset and Android Technician
7. Cable TV and Broadband Technician
8. Certificate course in Technical Documentation.
9. Certificate course in repair of Hand Held Devices
10. Video surveillance courses
11. Home appliances repairing including wiring
12. Course on basic Robotics
13. Lift Maintenance works in Apartments/Generator technician
14. LED Light Designer/ LED Light design Engineer
15. LED Design Validator
16. LED Mechanical Assembly Operator
17. LED Test and Measurement Technician



18. LED Repair Technician
19. Solar Panel Installation Technician
20. UPS/Inverter Installation Technician
21. PCB Assembly Operator
22. Transformer Winding Technicians
23. CNC Machine Operator
24. UPS/ Inverter Service Technician
25. Solar System Design Engineer
26. Solar Technician
27. PCB Design Engineer

Dr. Ajay Kumar, IAS, Joint Secretary, DeitY while concluding the session, observed that the workshop was conducted very efficiently and in graceful manner. The discussions were also very much engaging as well as encouraging. The manner in which the workshop has been conducted and the results it produced should become a model for others. He also reminded that this discussion and the courses presented are not the final ones but rather a step forward in deciding them. Further, industry and academic consultations, brainstorming and fine-tunings would be required before the inputs of the workshop are transformed into skill development programs.

Dr. M T Reju, CEO of ASAP added that the team of ASAP looks up to the Sector Skill Councils to take the next step after this workshop. He closed the workshop by thanking all the delegates, the chairs, the presenters and everyone who had participated and worked for the success of the programme.

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