CHAPTER-11

FINDINGS AND RECOMMENDATIONS

India, a developing country, is experiencing a complete change in the technological trends due to “Liberalization” and “globalization” approach adapted by its government. In the view of the changes in the industrial policy of the government, it has almost become mandatory for the industries to give topmost priority to the “quality” of their total activities in addition to the quality of their products. “Quality at competitive prices” is the order of the day. There is a sea change in industrial culture at present. The engineering ITI passouts entering into such establishments must at least be aware of such culture. The onus, of course, is on the technical institutions to provide such technical personnel who can be readily accepted by the industries.

It is obvious that the greater portion of demand for the skilled labor can be met with the outputs from the technical institutions in the country. Excepting a few premiere institutions, the quality of the output from the institution, by and large, is not up to the expectations of the end users. Many of the industries have certain reservations in the basic curriculum adapted and feel that the state of art technology is not being taught. There is, in fact, an astonishing gap between what is expected out of an engineering ITI passout and the way he is being trained in the institutions. As a result, technical establishments are finding it difficult to get people who can satisfy their requirements. Although a lot has been said about the industry-institute interaction, what has really been done in this direction is far below the desired level.

Technological advancement taking place round the world are at such an amazing pace, it has become difficult even for the industries to accommodate those changes at the same pace. Technical institutions cannot ignore the rate at which the technological scenario is changing. Perhaps, it is now and never before, the industries and institutions in India have started realizing the fact that they can no longer live in isolation. Instead, they have to depend on each other for their growth and betterment. There is a growing feeling that the institution must become a bridge between the ever-changing industry and the technology. It is also felt that the industries must remove all their apprehensions and develop understanding with the institutions to enable a meaningful interaction between the two. At the same time, the institutions must come
out of their “inertia” and strive hard to lend a helping hand to the industries. It is important to note that the task of imparting practical training to the engineering ITI passouts and engineering teachers is not an exclusive job of institutes alone. Industries must shift their stand from being a “customer” alone to institutes and become “partner” in the practical education of students and faculty.

The Chairman of the IMCs are mostly renowned industrialists of the surrounding area. Whereas another members of these committees are also from industry. The IMC provides a platform for continuous quality improvement in training and is driven as per need of the Industries. The IMC has played a crucial role in curriculum development, identifying guest faculties, grooming students as per specific needs of the industry, making available resources for self-learning, organizing industrial visits, providing on-campus opportunities, tying up with local industrial associations and employment agencies for placement. Now the students, who will come out of these Institutes, will be "Ready for industry" and get employment in the local industries.

It was also found out that there are no committees responsible for reviewing, assessing and promoting training programmes at ITIs and industries. In this respect it was proposed to urgently set up such committees with membership drawn from training institutions, industry, government and relevant professional bodies.

11.1 CATEGORIZATION OF MANPOWER FROM INDUSTRIAL PERSPECTIVE

The categorization of workers into white collar (office-based), grey collar (knowledge workers), blue collar (production, factory floor) and rust collar (skilled workers in unorganized, grassroots levels such as construction) groups. The training programmes for the first three categories are available, either in the public or private sector. It is for the rust collar workers that training and skills development is a major challenge, especially in terms of the sheer magnitude of the workforce, their low level of Literacy and access to training. To solve this problem, these partnerships are imperative. The guiding principles in such partnerships are focused on:

- Independent evaluation and assessment;
- Competitive basis for quality;
• Employment/demand orientation;
• Global benchmarking;
• Levels and progression routes;
• License to practice-certification.

Industry institute interaction is facilitated to a great extent through the Institute Management Committees having representatives from the industry. In the Industrial Training Institutes, the following developmental activities should be part of IMC activities:

• IMC should take steps so that industrialists be a true partners in developing ITIs infrastructure, faculty & technology, which are essential for the industry to lift the business a few notches high in the value chain.
• Deputing trainees for in-plant training to industrial establishments.
• Imparting special training programmes on topics like JIT, Industrial safety, TPM, TQM, TEI, 7QCTOOLS etc by a team of instructors trained by industries.
• Conducting student development programmes which eminent managers from the industry address.
• Deputation of instructors for advanced training at industrial establishment’s shop floor.
• Institutes should sign effective Memorandum of Understanding with different industries for interface of the instructors and trainees with industry. These MoUs should not only on papers but with fruitful outcome.

11.2 LINKAGE OF ITI WITH INDUSTRY BEFORE THE FORMATION OF IMC’S

• Linkages between training institutions and industries are weak and largely through students of industrial training.
• Inadequate industrial training places for all students.
• Weak interaction between industrial training instructional staff/officers and their counterparts in industries.
• Absence of vetted industrial training programmes.

• Assessment of industrial training programme is not formal enough to warrant hard work by the students.

• Absence of clearly articulated joint projects between ITIs and industries.

• Absence or low industrial training allowances to support the students.

• Negative attitude to industrial training by industries as they still harbour short commercial focus.

11.3 TO STRENGTHEN INDUSTRY LINKAGE, SOME OF THE SUGGESTIONS THAT HAVE COME UP IN THE STUDY

• IMCs agreed that the existing industry institute cooperation is very weak and does not only require government interventions but a concerted effort of all stakeholders such as manufacturers, (big and small-scale), financiers, trainers, and professional bodies.

• ITIs require dedicated, trained instructional staff preferably with industry background and they must have regular input regarding the latest technology developments in their fields.

• Industry should have a holistic policy to hold hands with institutions and work together for producing knowledgeable and competent ITI pass -out whom could be absorbed fully for productive employment.

• IMC should pursue Industrialist to invest for creating facilities in ITIs for training and further re- training and provide sustained motivational inputs.

• Industrial visits of at least three weeks for the final year trainees should be made mandatory for all trades.

• Industries should be associated to design need based short-term courses in the ITIs.

• Industry should come forward to solve the shortage of raw material problem of ITIs by giving job work to the ITIs.

• Non-availability of automation machines and NC/CNC machines featured as a serious impediment for the institutes towards becoming more responsive to the
emerging technologies. Ministry of Labour should extend financial support to make the machines affordable for these institutes. This would be instrumental in establishing a demand oriented training system in the country.

11.4 SOME OF THE OTHER SUGGESTIONS PUT FORWARD BY THE TRAINING INSTITUTES

- Extent of functional autonomy to the institutes needs to be increased; flexibility in curriculum design needs to be integrated as a part of the system.
- IMCs must be given more power to strengthen the training programme.
- Syllabuses of most of the trades need to be updated and brought in line with the industry requirements.
- There should be enough training imparted to the institute instructors for providing quality and sufficient practical training.
- More emphasis should be given on the training of the staffs and the training courses should be more practical oriented.
- Continual up-gradation and timely replacement of the machines is needed.
- The topics on soft skills, Life skills should be included in the syllabus of all the trades.
- Steps should be taken to map the skill requirements and course offering should be aligned with the same.
- The testing and certification norms should be strengthened and brought in line with the global standards so that students passing out of Indian ITIs are eligible to gain employment even overseas.
- Administrative work needs to be entrusted to administrative officer / administrative staff. Presently due to non availability of administrative officer in mega ITI implementing center of excellence and also ISO certification, principal finds it very difficult to concentrate more on educational activities. This could be overcome by suitably redeploying administrative staff available with department and also with increased use of MIS / Computerization. A comprehensive MIS system needs to be evolved and implemented so as to
facilitate principal and office staff to discharge their routine activities more efficiently.

- In absence of sufficient ministerial staff and supportive staff managerial tools, focus should be given on minimizing paper work.

11.5 SOLUTION TO THE IDENTIFIED PROBLEMS FACED BY IMC IN PERFORMING THE ROLES & RESPONSIBILITIES ASSIGNED TO THEM

- Over the years, expansion of Craftsman Training Scheme (CTS) has taken place at a very rapid pace. More emphasis had been given to the quantitative expansion than the qualitative aspects. The State Governments had been finding it difficult to provide sufficient financial resources for keeping the training equipment, staff and other infrastructure facilities updated. This adversely affected the internal effectiveness of the training in it is. The relevance of training programs has also not kept pace with the technological developments and occupational requirements. The mismatch between the skills produced and skills required has to be tackled on priority to improve efficiency & ensure relevance of training system to labour making requirements. Industrial organisations would well serve the purpose in their own interest, if they contribute towards better the functioning of it is.

- In the role and responsibilities delegated to IMC doesn’t mention about the procedure for keeping the earned funds with institution & how to use these funds, on development of institution, staff and students. As IMC’s are formed in Govt. ITI’s and these institutions are governed by Punjab Financial Rules (PFR). According to which every paisa earned by the institute will have to be deposited in Govt. treasury i.e. in Govt. receipt head. As Government provide funds for recurring and non-recurring expenditure of this institute. For this budget is allotted once in the beginning of a financial year. This means if an IMC of an ITI endeavor for earning funds how it could utilize for welfare of particular institute. The best way is to notify every IMC as a society under society act so that IMC could be so that the members of the IMC could be delegated all the powers of registered society so that the funds could be earned
and could be used properly for the functioning and development of the institute in the ambit of Govt. rules.

- It has been decided in roles & responsibilities of IMC that these institutes will work as production center to get optimum use of machinery installed & earning funds for the institute. The technical hitches to run these institutes as production unit could be abolished after the institute starts working as registered society. The society would be in position to fix/adhere to norms for Sales Tax, Excise tax etc to be paid to Govt. for these production items, Production rates, machinery utilization, labour rates etc. Hence the society could cover all these factors within the rules & responsibilities framed for functioning of IMC.

- There is need of the hour to run the institutes under IMC control and bureaucracy at Directorate or Secretariat level should not intervene in powers delegated to IMC.

- Bureaucracy should shun the thought to transfer the faculty member from one institute to another is their sole prerogative as IMC roles & responsibilities show that IMC should be taken in confidence while transferring the faculty from one institute to another.

- Similarly political system should be least allowed to interfere in the working of IMC if we want to get positive results from these Committees.

11.6 TO START NEW COURSES UNDER THE SUPERVISION/HELP OF IMC

- IMC is also allowed to start new full time/ short time courses, according to local and surrounding area requirement. The above-mentioned courses will either be recognized/ affiliated to NCVT (National Council of Vocational Training) or only to SCVT (State Council of Vocational Training). The expenditure met on these courses will be straight way draw funds from revenue earned by IMC through different means. After the formation of society registered under cooperative act these course could be run successfully with formal approval from State Government. This would be in congruence to the rules framed by Department of Finance & Accountant General.
Generally NCVT does not recognize these special courses. Then obviously SCVT will give affiliation to these courses. The students always avoid adopting SCVT courses, as these have limited recognition within the state only. As SCVT is a state body to recognize these courses. Hence it is strongly recommended that NCVT should cover more new course in its ambit. So that all course could be recognized at national level.

The major steps taken for the improvement in the technical education system:

- Increased involvement of industry at all stages of training and better industry institute interaction for bridging the gap between actual requirement and the final product of Industrial Training Institutes.
- Revision and up-dation of curriculum in consultation with industry.
- Introduction of new trades in emerging technologies as per the need of industry.
- Repair of the existing machinery and equipment available for training.
- Replacement of obsolete machinery with the modern high tech machinery for training.
- Enforcement of discipline and training schedule in Industrial Training Institutes.
- Training and Retraining of Instructors on modern technologies and high tech machinery in the modern industry including faculty exchange with industry.
- Filling up the existing vacancies of technical teaching and non-teaching staff.
- Exposure of the students in the relevant industry for practical training.
- Up-dation of training and instructional material with the help of expert agencies.
- The examinations, written as well as practical are being conducted with the involvement of end-user i.e. industry.
- Introduce a system of accountability at all levels for monitoring the performance of training staff in the ITIs.
11.7 THE VARIOUS POINTS THAT CAME OUT OF THE DISCUSSION FROM DIFFERENT INDUSTRIALIST AND MEMBERS OF IMC’S ARE

- Design curriculum as per Market Trends.
- Invite industry participation in course design.
- A right balance between basics of the course & contemporary subjects.
- Design Short courses as additional or over and above the curriculum.
- Introduction of credit based system.
- Overall, the change in whole approach to the education should be changed to do justice to curriculum. Hence decentralization & autonomy to the institutes is the need of the hour.
- Industry should be involved in evaluation of the institute staff.
- Industry experts to teach in the college.
- Industry should adapt a department in the college.
- Industry should help in developing the infrastructure by donating equipments.
- Institutes should share the infrastructure.
- Student projects should be more meaningful and faculty should have active participation. Evaluation of these projects should be done by industry. The projects could also take care of commercial parameters.
- Exchange programme should be carried out on well-defined parameters.
- Improve training delivery system to make it more dynamic and pro-industry.
- Create basic training facilities in the area which is in very high demand by local industries.
- Retrain existing Instructors so as to make them deployable in new emerging work area.
- Improve existing infrastructure and training delivery system.
- Increase the scale of placement activities.
- Implement Soft Skill Development Program.
- Impart Basic Skills in English language to trainees.
- Restructure existing training facilities so as to focus more on emerging areas of technology and discontinue the trades which have less demand.
- Restructure existing training facilities on demand driven basis.
- Consolidate on core activities of training and placement through industrial feedback
- Encourage Public Private Partnership (PPP) model
- Transform the institute into a dynamic and vibrant organization capable of catering to skill requirements of concurrent industries.
- Discharge social obligation of improving employability of the needy by imparting them the skills required by local world of work/ by retraining the needy.
- Make the organization more responsive to the requirements of unorganized and rural sectors by adopting modular and short term training programmers.

11.7.1 Imbalance in Supply of ITI Passouts

IMCs alleged that state Departments of Industrial Trainings have not developed clear practices for identifying potential demand for skills. As a result, the supply-demand ratios for a number of trades have far and away exceeded reasonable levels. For some trades, such as electrician, fitter, etc., the annual outputs of ITI passouts in some states are almost equal to the numbers of people employed in these trades. This obviously increases the risk of ITI passout unemployment. Some states also allowed for uncontrolled growth of enrolments at private ITCs that contributed considerably to the supply-demand mismatches. There is a clear overlap in the types of courses offered by Government ITIs and Private ITCs. The quality of ITC training has also been referred to as a problem that the State Directorates are sometimes unable to contain as numbers of private institutes are very large.

11.7.2 Aim of the Institute from IMC Viewpoint

To prepare Competent Technicians who are perfectly fit for needs of the industry, while offering Career Opportunities those suit the interests and abilities of our trainees.

11.7.3 Efficiency of ITIs from IMC Viewpoint

- Under Utilization of staff, assets and premises of ITIs, particularly felt in conditions of diminishing enrolments. The actual training capacity of ITIs in
terms of premises and available training equipment was found to be much larger than the number of sanctioned training seats, which means it remains underutilized.

- The efficiency of ITIs is particularly low as the skills training provided were unable to equip young people with high employability. This is reflected by a rather low percentage of ITI passouts who were able to find jobs, enter self-employment or join the family business.

- Presently no textbook exists in vernacular language for any of the trade this makes the system more dependent on notes prepared by the instructors which may vary from person to person and institute to institute. This work could be out sourced to reputed publication houses with suitable terms, conditions and reorganization.

- The major reasons for low efficiency are:
  - Low demand from organized industry for ITI passouts.
  - Financial, management and operational inflexibility of ITIs and lack of incentives for them to deliver courses that more accurately reflect a potential demand for ITI passouts. IMC must work out reasons those remain beyond the control of the training system, So that the capability of ITIs improve the efficiency that can be strengthened significantly.

11.7.4 Approach of the Institute from IMC Viewpoint

- Systems, Innovative practices, facilities, thrust on perfection, soft skills & values along with the curriculum, placement driven with a focus on entrepreneurship.

11.7.5 Assessment of ITI with the help of IMC

- Third party (Industry), Self, Formal exam system.

11.7.6 Teamwork of the Institute

- Trainee Faculty + Director of Industrial Training+ IMC + Industry
11.7.7 Practices in the Institute should be as desired by per IMC

- Effective Industry Interactions, Mentorship's, Visits, Certification, Culture of Excellence through events & initiatives. Workshops as supplement to basic training "Earn-while-u-learn" opportunities to develop "money-sense" among trainees. Opportunities for self-learning Training and assessment of faculty by industry.

11.7.8 Plans of the institute should be

- Aggressive placement, Financial self-reliance in operations, Incubation centre for entrepreneurs, Online tutoring, Online learning, Online tests, TQM, Six Sigma model.

- Industry (primarily in the form of associations) should play a proactive role in development of training programs/curriculum, assessment, screening and certification activities. The level of industry involvement would depend on the nature of the programs (formal education/training for unskilled workers).

11.7.9 Employers' participation in skill development initiatives

- Employers should participate in skill development initiatives through a range of avenues, as illustrated below:

11.7.9.1 Provide capital

In a simple form, industry may (associations/ individual companies) provide capital/grants to establish institutions/improve institutions that impart skills to employees.

11.7.9.2 Encourage employees to gain knowledge by participating in training programs

Industry can encourage its employees to participate in skill development initiatives. This can be happen in many forms – guest lecturers in institutions, visiting faculty, depute skilled workers to impart shop floor training, etc.

11.7.9.3 Participate in cluster level skill development initiatives

Organizations can become a part of a region/industry based skill development cluster, comprising of industry and educational institutes. The cluster participants would jointly work towards on skill development initiatives for the institutes in the cluster.
11.7.9.4 Adopt and run institutes that impart skills

Institutes could be adopted and run by organizations/associations, wherein they are involved in all activities involved in imparting appropriate skills to the students.

- Other forms of industry participation would include participation in curriculum updation, providing on the job training to students as a part of the curriculum, setting industry standards, and certification etc.
- Identify industry champions who would drive the skill development initiatives at the industry level.
- Partner with technical training institutes for delivery of skill development initiatives.
- Establish Centers of Excellence (CoE) for skill development.

11.8 SUGGESTIONS PUT FORWARD BY THE TRAINING STAFF OF THE INSTITUTES AND ENDORSED BY IMC’S

- With the help of IMC, trainers from local industry should be deputed for strengthening the training to available staff and at least one technical expert must be appointed directly for day to day technical activities.
- Training for operating and maintenance of Machinery & Equipments must be indicated in procurement condition. Annual maintenance contract may also help in training of staff.
- Training staff members should be provided short term training programmes in association with IIM, CII in Industrial H.R., in Asset Management, Financial Management, Resource Management, Human Resource Management etc.
- Advance industrial training should be arranged at industries where latest machineries are being utilized.
- Present system of deputing staff from state head quarter needs to be decentralized partly so as to enable head of the institute depute staff for the training of very short duration i.e. four days within the state.
- Officers and supervisory staff should be deputed at DGET training institutes/ Apex Management Training Institutes of repute at least for seven days in a year. Sufficient autonomy needs to be considered.
• Retraining module for deploying a instructor from un popular trade to popular trade dose not formally exit as present. Central agencies Like DGE&T or CTIs should make six months modules so that the instructors from the unpopular trade would be re trained and deployed.

11.9 SUGGESTIONS FOR IMPROVEMENT OF PERFORMANCE OF NON-TEACHING STAFF

• All office staff should be given English Literacy training.

• They should also be conversant with Communication, Computer Skill Training, Documentation and Prevention Training.

11.10 THE SKILLS REQUIREMENT SURVEY FOR UNDERSTANDING THE LOCAL INDUSTRY

• Local Industry partners need to be surveyed on a yearly basis to understand their skill needs. This survey needs to be facilitated by IMC members using the expertise of the industrial associations. The survey of at least 20-30 industries locally need to be done to ensure statistical validity of the survey.

• Analyze the responses and prepare a summary item wise, which will help in arriving at the various trades needed, areas in which improvement is necessary, updating needed in the curriculum and need for add on and continuing education courses in various modes of delivery and the areas in which the institution can use its existing infrastructure for revenue generation.

• Information on the following industry interaction areas need to be collected to form inputs for Institute Development Plan (IDP) in two separate feedback areas.

11.11 TRAINING AND RESEARCH RELATED FEEDBACK FROM INDUSTRY

• Prioritization on the different trades, which the industries need in the particular geographic area.

• Improvement of curriculum for the basic domain and preparation of curriculum for need based add-on courses.

• Provide in-house and at site training programs for industries and society around.
- Encourage industries to utilize the existing infrastructure for their training and production needs.
- Partner with industry to set up product/process development facilities as well as materials/product testing facilities.
- Provide continuing education programs in various delivery modes and durations and MES to industrial workers as well as society around ITI on upgradation to SCVT/NCVT certification.
- Computer based tutors and teaching aids are rarely available locally. If such imported CVTs are made available centrally and replicated locally without violating Licensing implements.
- Building maintenance and allied recurring expenditure to support upkeep of infrastructure is insufficient. Also procedure for the same needs to be simplified. Some administrative decision and decentralization of power can solve the problem e.g. whitewashing of the building could be entrusted principal.

11.12 INDUSTRY TRAINING AND PLACEMENT RELATED FEEDBACK FROM INDUSTRY

- There is already a shared understanding between IMCs members that the important drawback identified is that ITIs' routine offering of trades are known for limited employability. It is suggested that the problem of efficiency cannot be resolved without management reform. This reform should eliminate financial, administrative, and other constraints and improve motivation of ITI staff to operate efficiently.
- Provide in-plant training programs for students under industry institute interaction program.
- Facilitate campus interviews.

11.13 SUGGESTIONS FROM IMC'S TO IMPROVE PLACEMENT TIE UP

- Placement of ITI pass-out students is crucial and number of students getting jobs is an important indicator for the performance of ITI.
- Newspapers, Periodicals, Magazines and Books which may be helpful to the ITI trainees should be available in the Bureau.
• Computers with internet connection, enable the students to access employment related information.

• Professional counseling services with the help of IMC should also be made available to students. The Placement Cell documents the information of each and every ITI student, help them prepare their curriculum-vitae and assist them in applying for jobs.

• IMC should arrange guest lectures on Career related subjects by inviting Human Resource Managers and other experts from industries.

• Invite industries to visit the ITI during the last three months of training period.

• Involve the local employment officer

• Involve DIC (District Industrial Centre) for entrepreneurship training of candidates. The DIC shall assist students to begin their own business. For example, setting up of fabrication/machining shop. The DIC should provide loans which can be repaid by the students over a certain number of years.

• Interact with DIC to educate local industry for placement of beneficiaries of the ‘scheme’ under the Apprenticeship program already in vogue, in the industries as part of industrial training under the “earn while you learn” initiative or use this program to fulfill the ‘hands on’ part of ITI education.

• Members of IMC & Principals of ITIs at district level to be included in the Task Force for recommendation of loans for "self-employment” by General Manager, District. Industries Center.

• The IMC can also bring in the incubatory training methodology for those students who wish to be self employed. The training could be done for select number of students and shall be given training in particular trades (example: machining/fabrication etc), wherein the required equipment will be given by the institute. On being self employed, the student shall repay the amount to the institute in equal annual installments.

    IMC wants the following facilities should be made available to the prospective employer for conducting the Campus interviews in ITIs:

    ➢ Committee Room for conducting interviews

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➢ Candidates from all concerned it is, at the place of interviews
➢ Machinery and equipment for trade test
➢ Venue for aptitude test, if any
➢ Technical and ministerial staff for help and assistance in conducting interviews/test

11.14 RECOMMENDATIONS FOR PLACEMENT TIE-UP

• Organizations should be welcomed to make a pre-placement talk or have the opportunity to visit office for discussion. This provides an opportunity for the organizations to showcase their corporate requirements and the job profiles.

• Besides recruitment-related activities, companies should be invited to visit institute’s facilities and meet faculty members for exploring new areas of collaboration.

• Industrial houses should be invited to conduct Campus recruitments on mutual convenience. If desired by the company, institute should co-ordinate and provide necessary infrastructure and facilities for Pool/On Campus Placement in which the Company specified the Institutes are invited to participate.

• The best time to initiate work on Placement tie-up is before the 2nd year of the Trade under CoE scheme starts.

• Review the present Placement process. The ITI may or may not have a formal process in place.

• Review if manpower is adequate. If not, get approval of engaging a Consultant for the Placement Cell (PC).

• Get an A, B and C category leverage industry of prospective Employers ready.

• Get in touch with Industries methodically through e-mail, phone calls to HR depts., presentations to Industries Chambers and personal visits to the premises of prospective Employers.

• Target should be able to get Industries with specific recruitment agenda for ITI visit, to obtain Industrial training opportunity to students during the last 4/6 months of the academic session and recruitment of the performers.
11.15 EMPLOYMENT PRACTICES

- The feedback received from different industrial houses is that they do not consider the ITI passouts as suitable for immediate employment. They accept ITI passouts only as apprentices and train them for two to three years after which they may be considered fit for employment. Therefore the total period of skills training involving the ITI-based as well as on-the-job may amount to four to six years, a rather long period of time, ending up with small salaries.

11.16 PLACEMENT OF APPRENTICES

- ITI passouts compete for apprenticeship places as it seems that being an apprentice and earning an allowance of around Rs.1,000 a month is better than being unemployed which is a widespread situation for ITI passouts. As students of Govt. ITIs are those with educational merits, they also have an advantage in competing for apprenticeship placement. However, companies accept very large numbers of apprentices under the requirements of the Apprenticeship Act, IMC members are of the view that industry provide them with few jobs. Even assuming that the ITI passout apprentices would eventually find employment in the informal economy, the apprenticeship training/placement procedures should also be reconsidered. The apprentices who undertake training in large companies usually operate special equipment. They therefore risk wasting time in practical training as such equipment is not available in micro enterprises where the major job opportunities are supposed to occur.

11.17 TENURE OF ITI COURSES

- The combined duration of ITI-based training and of apprenticeship also suggests that NCVT courses are extremely long and generate very few incentives for young people to invest in training. There is a clear need to rationalize the total period of training and review the apprenticeship schedule and content enabling integration of ITI courses with apprenticeships. The total period of ITI-based training plus apprenticeship should be within two to three years and lead to the skilled worker qualifications.
11.18 EMPLOYMENT STATUS AND INCENTIVES TO IMPROVE EFFICIENCY

- With the active involvement of IMC, ITIs could be given greater operational autonomy to ensure more flexibility and responsiveness to the market demand for skills.

- IMCs observation is that there is low staffing flexibility in ITIs. Government recruitment and transfer procedures are said to have made it, in many cases, almost impossible to introduce new courses as this would require long lead times for replacing instructors. As ITIs operate in a centrally prescribed mode, their staff lack freedom to operate flexibly in local training markets. The demand for high-quality and relevant training has increased while ITIs failed to respond to it.

- It has been also found that the employees of Govt. ITIs have only few incentives and limited freedom to expand. IMC should participate wholeheartedly to enhance the number of sanctioned training seats, fill all the available training capacity, replace training courses with new ones, and ensure that a greater share of students would appear for trade tests and actually pass.

- In Orissa, for instance, certain attempts have been made to proclaim individual ITIs as autonomous institutions. In Maharashtra, the process of enhancing freedom of ITIs has been more advanced and involved considerable preparatory work.

11.19 UTILIZATION OF SKILLS BY ITI PASSOUTS

- It has been found by a survey that around 65-68 per cent of Government ITI passouts reported that they had worked in the trades in which they had been trained or in closely related trades.

- As far as skills utilization is concerned, in Punjab & Harayana private ITC/ITI passouts were more successful than Government ITI passouts.

11.20 MAIN ACTIVITIES OF UNEMPLOYED ITI PASSOUTS

- Lack of employment opportunities pushed ITI passouts towards further education and training. In a study on average, some 40 per cent of the unemployed Government ITI passouts were found in various forms of education.
and training. Private ITI passouts’ participation in further education and training varied considerably across states, around half of all the unemployed Govt. ITI passouts were mostly involved in domestic work.

11.21 CAPABILITY OF THE UNORGANIZED SECTOR TO ABSORB ITI PASSOUTS

- IMC in association with Micro enterprises showed no large capability for attracting ITI passouts as well as ITI passout apprentices. Many micro enterprises are unable to afford paying reasonable wages as well as offering attractive conditions of work to certified crafts people. They continue to provide skills training to the low-educated job entrants through long-term on the job training. However, ITIs would also be able to train the less educated for whom the unorganized economy jobs are acceptable.

11.22 RETURNS TO THE INVESTMENT IN TRAINING

- It has been also Long-term NCVT courses last, depending on the trade, for one to two years and end with qualifications of semi-skilled worker. Industrial enterprises accept training ITI passouts only as apprentices for, mostly, two years’ duration. Some companies also keep them on probation for a substantial period of time afterwards. As a result, personal investment in training, up to four to six years, is required to reach the level of skilled worker. As this is accompanied by a considerable amount of foregone income and uncertain employment prospects, formal skills training in India is viewed as cost-inefficient and an unattractive venture for young people. It raises the issue of closer integration of ITI-based training and apprenticeship as there is an apparent overlap affecting, negatively, rates of return to investment in training.

11.23 LEVERAGING INDUSTRY RESOURCES

- The closest Industry Resource (IR) is the one which should be tied up with the ITI through IMC.

- The other Industry Resources could be:
  - Local industry Chambers Leverage
  - Industries from where non-government IMC members are coming.
➢ Local Industry interested in the Trade under CoE scheme.

➢ Association with the above, when handled methodically, could bring several benefits to ITI:

➢ Information on current Technical trends.( IMC member to recognize the way students are taught is guided by the curriculum set by DGET which also sets question papers. Therefore, changing the curriculum will not be possible at the ITI/IMC level.) External Trainers can help.

➢ Opportunities to Trainers and students for visit to Factories and Installations.

➢ Training of Trainers through interaction with Local industry representatives.

➢ At the same time, the association between IMC and ITI, when handled methodically, bring in several benefits to local Industry:

➢ At the micro-level, Industries are quite aware of the fact that they need more and more trained man-power. This interaction keeps them updated about general trend/need of the ITIs and the specific needs of the ITI under the aegis of IMC.

➢ Whereas at the macro-level, IMC can convey to DGET & DIT the ideas for change/improvement through Industrial association.

➢ IMC with methodical and continuous interaction, develop a better information feed-back chain between local industry and ITI

➢ As an individual IMC member makes fellow IMC members aware of the above, the system of teaching/training and feedback chain improve.

➢ IMC should help for exposure to current Machinery since an ITI may not have the latest ones and need guidance for selecting the type and source of Machinery

➢ Leverage Industry partners should develop better computer awareness and an Internet site. Along with developing MIS and faster Accounting practices through training in Financial Accounting.
11.24 ORGANIZING LECTURES BY EXPERTS FROM THE INDUSTRY/CONTRACT FACULTY

• IMC can allocate time and money for this activity

• This step is very significant and important, because, IMC meetings mostly deal with administrative and financial matters and ITI, as stated earlier, functions academically within the boundary set up by the curriculum.

11.25 TO VIEW THE TRAINING NEEDS AS

• IMC participation could improve upon the performance in the examinations on the curriculum set by DGET.

• IMC is needed to bring in awareness about the current Industrial scenario within the Classrooms of the ITI.

11.26 PLAN THE TRAINING SESSIONS

• Either, imparting knowledge/ideas to the trainers, who, in turn impart the same to students or imparting knowledge/ideas to the Trainers and students simultaneously.

• IMC to guide action area, planning sessions, lecturers and durations.

11.27 IMC SHOULD INITIATE & EXECUTE ‘INDUSTRY INTERACTION AND PRODUCTION SERVICES’ WITH ACTION PLAN

• Revenue and profit from continuing and short term courses (including to industrial workers)

• Revenue and profit from placement fees and production services.

• Revenue and profit from consultancy services to the industry.

• Chairman of IMC should prepare an executable work plan i.e. calendar of activities for the ensuing years

11.28 TO INITIATE INDUSTRY INTERACTION AND ‘WORK AND STUDY’ SCHEME

• IMC Chairman being the Link between industry and ITI is the most important liaison to launch this scheme, starting with his or her own company. “Hands-on”
training in the industry or ‘on-the-job’ training while production is the only self-sustainable approach to vocational ‘training’.

11.29 TRAINING WOMEN TO REDUCE ATTRITION

- Members of ITI Ludhiana have given an innovative approach to reduce attrition.

- The attrition rate among the workers is high in the welding trade compared to other trades. The quantum of welding work in Fabrication of Pressure Parts is high compared to Fit up and grinding. The Man-hours in welding is almost 50% in any Pressure Parts fabrication job. The cost of training a pressure welder is not less than Rs.60,000/- In order to overcome this constraint, a conscious decision is required to be taken to train and induct ladies as Welders on a trial basis. This initiative would be very successful in meeting the welding requirements. This initiative not only will empower the women welders but also give them respect in the society.

11.30 NEW INITIATIVES PURPOSED BY IMC

- The IMC team after inspection at ITI Gurgaon found that the students were lacking in practical training, soft skills and on-the-job training. Then the team after through deliberation purposed that new courses with fixed number of students should offer practical training at 5 days a week in batches for almost one year at different industrial units. The students would be paid daily wages. The theory classes could be arranged on Saturdays and Sundays at the nearest ITIs itself utilizing the same staff. The staffs could be compensated for their work on Saturdays and Sundays. This arrangement would be worked as “EARN WHILE YOU LEARN” Scheme. The Engineering firms headed by IMC chairman would be recognized by the Government as the approved Training and examination Centre (Practical) for the respective trade. It has to depute its staff as examiners to ITI during examinations on regular basis and also few of the Managers have to visit as Faculty. The in-plant training imparted to students would not only help them to improve their Skill and knowledge but also will improve their personal skills, productivity and employability.
11.31 IMPLEMENTATION OF ISO IN ITI'S

- ISO (International Organization for Standardization) is the world's largest developer and publisher of International Standards. ISO is a network of the national standards institutes of 157 countries, one member per country, with a Central Secretariat in Geneva, Switzerland, that coordinates the system. ISO is a non-governmental organization that forms a bridge between the public and private sectors. On the one hand, many of its member institutes are part of the governmental structure of their countries, or are mandated by their government. On the other hand, other members have their roots uniquely in the private sector, having been set up by national partnerships of industry associations. Therefore, ISO enables a consensus to be reached on solutions that meet both the requirements of business and the broader needs of society.


- Standardization of Office Procedures
- Develop systems for efficient working
- Action Plans and Time schedule are devised for completing various types of tasks
- Effective Monitoring Systems to assess the progress of the tasks aimed at achieving the annual targets and goals of the organization
- Organization of Official papers and documentation in a systematic manner
- Introduction different colored file folders for different branches for easy identification
- Computerization of Record Keeping
- Regular training to staff members to improve the quality of their working
- Improvement in the office environment
- Housekeeping of the office has been improved
- Effective use of Computers, E-mail and Internet has increased the speed and efficiency of electronic data collection and management of information