SECOND WEST BENGAL STATE CONFERENCE OF TECHNICAL EDUCATION

OCTOBER 4-5, 2002

Organised by :

THE ASSOCIATION OF ENGINEERS, INDIA
INDIAN SOCIETY FOR TECHNICAL EDUCATION
THE INSTITUTION OF ENGINEERS (INDIA), WEST BENGAL STATE CENTRE
FORUM OF SCIENTISTS, ENGINEERS & TECHNOLOGISTS (FOSET)
WEST BENGAL (GOVERNMENT AND SPONSORED) POLYTECHNIC TEACHERS' ASSOCIATION

VENUE: SRI R. N. MUKHERJEE HALL, WBSC, IE(I)

The inaugural session started on October 4, 2002 at 10 a.m. and was presided over by Prof. Dr. M. Bhattacharyya, President, The Association of Engineers, India. Welcome address was given by Prof. Dr. R. N. Banerjee, Chairman, WBCS, IE(I) followed by the theme Speaker Dr. N. R. Banerjea, Organising Seecretary, The Association of Engineers and Working President, FOSET; he highlighted on what context so many Organisations had joined hands to organising the Conference. "Within a few years so many engineering Colleges, degree and diploma levels, have already come up in W.B. and more are in the pipeline ie there has been sudden expansion of technical institutes. It is our duty to formulate a perspective plan for technical education for this century with a view to maintaining the quality of technical education and seeing that the core engineering areas are not neglecled in the face of clamour for IT related euphobia", Dr. Banerjea observed.

Prof. A. Sengupta, Vice-chancellor, B.E. College (a Deemed University) dwelt briefly on perspective planning of technical education and narrated various measures to maintaining the education-quality."

Prof. Dr. M. Bhattacharyya, Chairman, ISTE West Bengal Section in his presidential address quipped, "Nearly all the points of the Conference have already been touched by the learned speakers very nicely leaving few for me. I can only express my agony the way the traditional core engineering disciplines are sacrificed in the altar of so called high-fi-streams while opening the new engineering colleges". "People these days will, in general, not enter into any venture for no material gain. But do the various authorities play fairly in controlling the mushrooming of technical institutions?" He remarked with remorse.

The inaugural address was given by Prof. Satyasadhan Chakraborty, Hon'ble MIC, Higher Education, West Bengal. Prof. Chakraborty highlighted the encouragement his department was providing for opening of new technical/engineering institutions. He said that many more were in the pipe line and more would be coming up in near future also. "We have been able to arrest, partly if not fully, the plight of students of W.B. to other states. We even expect the reverse trend", he observed.

Vote of thanks was proposed by Sri R. C. Bhattacharya, Secretary ISTE, WB Section.

The six technical sessions were followed by the Valedictory one.

Technical session I devoted to Perspective Planning, Need Assessment & Future Orientation, was chaired

by Dr. T. K. Roy, Professor, Metallurgical Engg Dept., B. E. College, which started at 11-30 a.m. sharp. Two papers, one by Prof. D. Sengupta, B.E. College (D.U.) and the other by Sri Partha Mukherjee of W.B. Polytechnic Teachers' Association were presented.

TS II devoted to Resourees Planning & Infrastructure Development, started postlunch at 2-30 p.m. under the Chairmanship of Er. R. C. Bhattacharya, Vice Chairman, W.B. State Council of Technical Education and the papers were presented by Prof. B. B. Poira, Director, Heritage Institute of Technology, W.B. and Dr. S. Chakraborty, Director, Institute of Engg and Management, Salt Lake, Kolkata.

TS III devoted to Quality Management and Regulatory Framework Chaired by Prof. Dr. M. Bhattacharyya started at 4-15 p.m. and continued up to 6 p.m. Papers presented were by Dr. N. R. Banerjea and Prof Jamini Das, Director, Kolaghat Engg College.

TS IV on Manufacturing Sector started at 9 AM under the Chairmanship of Dr. R. N. Banerjee, on October 5, 2002. Papers were presented by Prof. Monoj Kr Maitra, Dean, FET, Jadavpur University and Prof. M. K. Banerjee, Secretary, DST, govt of WB.

TS V on Services & Infrastructure chaired by Mr. Sailapati Gupta, Former president, FOSET started at 10-45 a.m. Papers were presented by Prof. N. C. Chatterjee, E.E. Dept., J.U., Mr. S. Bhattacharya, ED (Material), C E S C Ltd and Prof. Ajoy Ray, IIT, Kharagpur.

TS VI on Agriculture and Biotechnology, chaired by Prof. B. B. Biswas, Former Director, Bose Institute, started at 12-15 p.m. saw only one paper by Prof. D. K. Bhattacharya, Professor Emeritus, A I C T E, C. U..

Valedictory session at 1-45 p.m., chaired by Dr. S. Chatterjee was graced by Md Salim, Hon'ble MIC, Technical Education, govt of W.B., who gave the Valedictory address in his lucid style. Hon'ble Minister dwelt on technical education with particular emphasis on polytechnic level and his department's planning for the quality upliftment of technician education. On the dias were Dr. R. N. Banerjea, Sri Sudip Sengupta, President, Students' Federation of India, W.B. State Committee, Mr. Pijush Chakraborty, General Secretary, WBPTA & Prof. Dr. M. Bhattacharyya, who also each spoke in very brief about the Conference-to -end. Vote of Thanks was proposed by Sri Mrinal Kanti Basak, Treasurer, The Association of Engineers, India.

In fine, the conference was a grand success with more than 100 participants from all the engineering sectors; all the speakers presented quality papers reflecting their great concern with technical education but ended up with optimism. The Chairmen of all the sessions effectively brought additional dignity to the sessions and finally, recommendation from the Conference emerged which was to be transmitted to the concerned quarters.

Recommendation

TECHNICAL EDUCATION POLICY

- VISION
- MISSION
- OBJECTIVES
- DEPLOYMENT

- QUALITY MANAGEMENT
- RESEARCH & DEVELOPMENT
- FUNDING
- GENERAL

Vision

To re-position West Bengal amongst the top three States of the country as provider of excellent technical education and facilitator of research and development, having focus on self-reliance, commitment and societal aspirations.

Mission

To achieve excellence in technical education at the levels of craftsmen, technicians and engineers, both on qualitative and quantitative dimensions, through improved system, creation/better utilisation of infrastructure, curriculum and faculty development, linkage with social institutions and industry, resources generation, networking and effective management of change.

Objectives

- To redesign the technical education system with inputs from national/international institutions, focussing on both education and applied research, relevant to changing technology and industry scenario.
- To consolidate and better utilise the infrastructural facilities already created, by introducing shift system whereby seating capacity may be considerably increased without creation of additional facilities.
- To provide learning opportunities to at least 50% of the aspirants seeking admission into any of the three tiers of technical education.
- To build an institutional mechanism for faculty, administration and curriculum development.
- To network with industry, R & D and social institutions in the country and abroad, for identification of emerging technologies as well as industrial/societal problems, to be addressed appropriately.
- To develop an appropriate monitoring system for identification of system/process deficiencies and their rectification.
- To encourage internal resource generation through consultancy, offering of continuing/refresher education programmes, industry-oriented degree/diploma/cartificate courses and other technical services.
- To encourage private sector participation in technical education on self-sustaining basis within the State/National framework, statutes and regulations.
- To equip the learners with adequate technical, human relations and conceptual skills needed to serve National/International markets.
- To inculcate a spirit of self-reliance and commitment to meeting societal aspirations.

Deployment

- Setting up of a Center of Pedagogical Research in Technical Education and Training at one of the Technical Universities of the State with the objectives of system design and development of faculty, administration and curriculum.
- To bring all the three tiers of technical education under one umbrella.
- Utilisation of the facilities of some of the Polytechnics for introduction of degree courses.
- Adoption of a cluster of private engineering colleges and polytechnics by Govt. engineering colleges/Technical Universities for guiding their developmental activities.
- Formation of State, District and Institute level Industry-Institute Partnership Cells.
- Setting up of State/District Level Regulatory Boards with statutory authority to audit performance of technical institutions.
- Establishment of an inter-university board for introduction of industry-oriented courses on modular basis spread over a flexible period of time.
- Development of e-learning and networking facilities.
- Availing the schemes of Emeritus Professor/Early Faculty Induction as announced by MHRD/ AICTE from time to time.
- Participating in the Quality Improvement Programmes administered by MHRD/AICTE through ISTE.
- Ensuring that at least two-third of a year is spent in teaching/laboratory/workshop and one-third spent in examination and vacation.
- Publication of academic calendar much before the commencement of session.
- Redesigning the evaluation system for bringing objectivity, elimination of errors and emphasis on continuous evaluation.
- Provision of faculty members as per AICTE norms, both in terms of number and qualifications.
- Selection of faculty members for private engineering colleges through the College Service Commission.
- Upgradation of library, teaching aids, instructional materials.
- Provision of behavioural inputs for the development of leadership, human relations and conceptual skills.
- Provision of recognition and rewards to teachers and students based on teaching/learning performance and research publications.
- Removal of gender inequality by reserving not less than 20% seats for girl students.
- Permission to establish new institutions should be granted if it is proposed to be set up in a location having water, electricity supply and rail–road connection.
- While establishing new institutions or expansion of existing ones, due consideration to be given to

emerging technologies and manpower requirements of industry.

- Coordination with NTMS nodal centres for assessing technical manpower requirements.

Quality Management

- Instituting a very strong audit system covering all facets of technical education, right from student admission to their final evaluation including infrastructural facilities.
- Obtaining ISO 9000:2000 version certification by each of the institutes as well as the Technical Universities or Departments.
- Implementation of Total Quality Management.
- Development of a technical Education Excellence Model and its implementation.
- Encouraging formation of Quality Circles.
- Development and implementation of Performance Management System for faculty members.
- Arranging refresher and self development courses for faculty members and administrators.
- Bringing in-service orientation continuously bridging the service gaps.
- Providing exposure to ISO:9000:2000 version and getting a number of faculty members trained as Lead Auditors and Internal Auditors.
- Governance of the institutes to be vested in bodies comprising government, academia, industry and students and such bodies to be given limited autonomy for greater functional effectiveness.
- Encouraging resources generation through R & D, consultancy, refresher/continuing courses for industry.
- Publication of text books in print or CDs.
- The State support in technical education to be frozen at an opportune point of time and institutes/ universities to generate fund for further development work.
- The fee structure of Government engineering colleges/technical universities to be revised realistically and that of the private engineering colleges shall be in accordance with MHRD/AICTE norms.

General

- The staff structure of technical institutions and universities to be examined and all existing vacancies filled up within a reasonable time.
- The existing infrastructure in terms of workshops, laboratories, libraries, computers, networking, office automation, printing and reprographics to be strengthened and updated.
- Faculty identification and development in the emerging areas to be done simultaneously with workshop and laboratory development before commencement of courses in the emerging areas.
- Greater emphasis to be laid on practical training in workshops and laboratories under direct supervision of faculty members not below the rank of senior lecturers.
- Involvement of industry in the management of technical institutions including teaching and

evaluation.

- Institution of rewards, scholarships, recognitions with industry assistance.
- Providing support to economically weaker sections of the community and physically handicapped people for undertaking technical education.
- Imbibing a maintenance culture pertaining to civil, electrical and mechanical maintenance.
- Creation of entrepreneurship development centres to provide encouragement and guidance to students for self-employment.
- Establishing a mechanism for training administrative personnel and faculty members in management of technical education.
- Re-organising the State Secretariat with induction of educationists at different levels, starting with the top, and integrating all the three tiers under one Department.
- Development of a mechanism for technical manpower planning in line with National Technical Manpower Information System (NTMIS) and in collaboration with industry.
- Transforming not less than 10% of the existing engineering colleges, polytechnics and ITIs to Centres of Excellence and granting limited autonomy to them.
- Interactions with IITs/NITs/ESCI/ASCI/IIMs for management inputs.
- Interactions with State agencies dealing with technology, industry, agriculture, rural development and planning.

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A Two-day Training Programme on **Occupation Health & Safety** was organized by The Association of Engineers, India on October 20 & 21, 2001 at Hotel Peerless Inn.

Address of welcome was given by Dr. N. R. Banerjea, Secretary, of the Association & G. M., HRD, CESC Ltd. and the theme was briefly narrated by Er Jayanta Chowdhury, Editor of the Association & It Chief Inspector of Factories, W.B. Prof. Dr. M. Bhattacharyya, President of the Association & Professor and Head, Mech, Engg Dept., J.U. (Retd) delivered the Presidential address. Er. R. K. Gangopadhyay, chief Inspector of Factories, W.B. in his inaugural address lauded the Association for arranging such a programme so vital these days. Er. M. K. Basak, Treasurer of the Association proposed the vote of thanks.

The partipants were from different industries and the erudite speakers were from university, industry and Directorate of Factory, W.B.

The valedictory session was chaired by Prof. Dr. M. Bhattacharyya and joined by Sri S. C. Guha, Chief Inspector of Boilers, W.B; Er. R. C. Bhattacharyya, Vice-Chairman, WBSCTE & Dr. N. R. Banerjea who also spoke on the occasion. The participants thanked the Association for helping them to enrich their knowledge in SHE.

****MEMBERS OF THE ASSOCIATION ARE INVITED TO ADVISE THE ASSOCIATION THE AREAS SHE SHOULD TREAD IN LINE WITH THE ABOVE RECOMMENDATION.**

Prof. Dr. M. Bhattacharyya
(President)