

Note On TEQIP Audit Of Institute of Science & Technology,
JNT University, Hyderabad
during 26th & 27th Sept., 2005 –
Observations and Suggestions
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General:

This decade old institution is unique in terms of its PG level specializations for a conventional academic establishment. Within this short span, the institution has established a national level identity for itself with good scope for industrial consultancy, particularly for the geo-informatics and spatial information systems areas.

Establishment of the microbiological research facilities particularly enabling the study of bio-degradable plastics, initiation of nanocarbon rod fabrication activities etc. can pave way for excellent sponsored research with ample scope for industrial applications and IPR establishment.

Funding under TEQIP (which is sizable compared with the established capital outlay of the organization) shall contribute significantly to the further improvement in the level of excellence of the institute, particularly in terms of research activity.

1. Project Implementation

- (i) Project ownership amongst functionaries, faculty and students
 - Necessary to appraise all the BOG members and solicit their cooperation & commitment including the VC of JNTU
 - Head of the Institution and Senior faculty need to pay better attention
 - TEQIP coordinator needs to pay extra attention and should be equipped with additional manpower, laptop etc.

- (ii) State of preparedness to move rapidly with overall project implementation
 - Better preparedness desired
 - Full administrative autonomy including recruitment essential

- Immediate recruitment of sanctioned level of faculty essential
 - Additional faculty and laboratory support staff positions for proper implementation of TEQIP program are required on 3 years contract basis to be sanctioned and recruited immediately. The posts may be continued by financing after the tenure using the internally generated resources.
- (iii) Improved curricula, syllabi and teaching-learning process
- Web-enabled mentoring, and project guidance by faculty / industry associates desirable
 - Water resources management courses needs thorough re-evaluation due to the alarming decrease in level of intake in recent years
- (iv) Refurbishment of academic buildings
- Not relevant at the moment
- (v) Strengthening and modernization of academic facilities
- Establishment of more of CBT course material by all depts., on lines of Networking subject from ECE dept. of the OU engg. college, MSc – IS course material and eLearning initiative by AP State Council of Higher Education, eLearning initiative of CDAC, open courseware of MIT - USA
 - Wireless intranet access within the entire campus
- (vi) Improvement in overall faculty competence and activities
- Recruitment of fresh PhDs at entry level
 - Train temporary faculty
 - Bio-technology dept. needs special attention on top priority for appropriate staffing at senior levels and those with PhDs
 - Participation in the National Plan for Technology Enabled Learning (NPTEL) program of Govt. of India including course content development
- (vii) Operation of formal networking
- 2005 Summer should have been utilized for this purpose
 - Extensive usage of holidays and vacation should be made
- (viii) Services to community and the unorganized labor force

- Service to the Women community and senior citizens may be planned
 - Emergency services support with GIS may be publicised
- (ix) Implementation of Tribal Development Plan
- Formal planning and timely implementation desirable

2. Implementation of institutional reforms

- (i) Creation of institutional ambiance conducive to achievement of high institutional standards
- Good quality hostels essential for all students and bachelor faculty
 - Desirable to have a separately walled campus to maintain exclusivity
 - Fully residential campus is absolute necessity particularly for this institute if high degree of excellence is desired. This should include mandatory within the campus housing (even neighborhood locality stay is not desirable) for all staff, especially for all seniors
- (ii) Introduction of flexibility in program offerings
- Electives may be offered as per choice of students.
 - Industry experts may be involved for teaching the electives for some important topics during the full semester course
 - Summer semester may be introduced
- (iii) Usage of continuous assessment for evaluation of students' academic performance
- Information may be made available to parents / guardian over call center facility with secure access
- (iv) Appraisal of teachers' performance by students
- Should be introduced immediately and be formally documented and made available for reference during audit and for parents / guardian

- (v) Establishment of four funds and their sizes
 - To start immediately with steady improvement of 5% to 10% per annum targeted.
- (vi) Institution of improved service package for faculty
 - Consolidated remuneration of temporary faculty may be fixed at par with the regular staff considering their gross emoluments including appropriate costing for the short term and long term perks
- (vii) Offer of incentives to faculty
 - Liberal performance linked cash incentives desirable
- (viii) Mechanisms for self –correction
 - Need to make a self assessment by faculty regarding their availability to students and closeness to the industry and research requirements

3. Administrative and managerial efficiency improvement

- (i) Modernization and decentralization of administration and financial management
 - OLIVE database type facility (provided for on line access of OU information by US Consulate) may be suggested for complete modernization.
 - Total automation of institute functioning and call center facility immediately required
- (ii) Increased responsiveness to students academic and non-academic requirements
 - Typically 14 to 18 hours of access to library, laboratory facilities and 24X7 access of computer & internet / digital library / online journal access necessary
 - Availability of 24X7 access of computer & internet / digital library / online journal access in the hostels desirable.
 - Exclusive hostel for ladies is absolutely necessary

- Providing a Faculty mentor for each of a small group of 15 to 20 students is required to help them during their tough times personally and academically.
 - Establish and make available a panel of outside experts of all the relevant areas of study and research
 - Make all the resources fully available to students and all junior faculty including the Laptop for seminar presentations
- (iii) Increased responsiveness to faculty requirements
- Laptops for all Professors
- (iv) Increased utilization of institutional resources
- May be made available to outside professionals (individuals with academic interest) on non-profit based payment terms
- (v) Maintenance of academic and non-academic infrastructure and facilities
- 24X7 access of a small task force kind of fast response action team for emergency situations

4. Quality of education, training and services

- (i) Accreditation status
- More specializations with accreditation / collaboration with overseas universities may be planned
- (ii) Improved relevance of curricula and syllabi
- Considerable scope exists for introduction of state of the art topics in terms of electives and more frequent student seminars
- (iii) Use of modern teaching/learning aids and methods
- Mentor based instruction like the MS-IT program, web-based mentoring etc may be tried
- (iv) Provision of opportunities to students to improve their learning

- Interlibrary access to the online facilities, computational facilities based on remote log-in, grid computing etc. of reputed overseas universities may be planned

(v) Interaction with Industry

- To be improved with more of student participation
- Compulsory industrial training / association for all faculty periodically (say every three years) for 4 to 6 weeks
- Each junior faculty member should have atleast one publication per semester jointly with some industry professional in some conference / journal, preferably of international standing and one per semester for each student member of all PG programs during final year study

(vi) Placement through campus interviews

- Immediate and special attention towards non-IT placement of non-IT based specializations (IT related only limited to design automation in these areas) vital

(vii) Training and services offered

- Numerous opportunities in terms of the daily needs of the service departments of Police, Defence and public utility departments should be investigated and supported with the joint participation of students.

Conclusion:

Due to the last minute arrival of funds during the financial year 2004-05, it appears that the originally planned progress could not be achieved by the time of this audit. However, it is observed that the implementation of TEQIP in this institution is likely to attain the expected results only with better team spirit, feeling of project ownership, and substantial improvement of administrative efficiency.