#### Virtual University Project for University of Madras:

The Virtual University solution comprises of the studio. Data Center (at Chepauk) and Remote Study Centers. Data Centre connects 11 remote classrooms situated in 4 Campuses of University of Madras, 3 Govt. Colleges and 4 private Colleges under University of Madras.

#### **Objective:**

The objectives of the establishment of the virtual university setup are:

To provide Synchronous and Asynchronous learning and Delivery of interactive expert lecture programmes & course contents as prescribed by the Virtual University to off campus students.

To enable live and seamless interaction & collaboration, on-line virtual meetings

among the University authorities, Faculty and Students.

Automating the entire life cycle process of Virtual University Student from admission till the certification with secured examination system.

System Elements built in the solution

- 1. Tele-Education Studio with production control facilities.
- 2. Data Centre with SERVERS and Centralized STORAGE System with scalability, reliability and redundancy.
- 3. A comprehensive Virtual University Portal as a Gateway to the Experts, Faculty, Researchers and Students of the University with synchronous and asynchronous learning management system
- 4. Content Development Centre.
- 5. Virtual (remote) classrooms are proposed to be connected to University through Wi-Max/MPLS/Lease Line/VSAT network etc.
- 6. Tele-Education Application Software with all advanced features and facilities.
- 7. System Software.
- 8. Internet connectivity to the University Data centre.

# Awards and Accolades for Projects on Tele-education / Tele-medicine.



Pan-African e-Network Project has been awarded for "Best Development Initiative for Africa for the year 2009" by the Africa Telecom People.



Pan-African e-Network Project has been recognized for its contribution in the field of sustainable development with "the Hermes Prize for Innovation 2010" by the European Institute for Creative Studies and Innovation.





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# **TCIL's Innovative ICT Solution for Virtual University** and Tele-Education



**Telecommunications Consultants India Limited** (A Government of India Enterprise)

IS/ISO 9001:2008 4

# TCIL's Innovative ICT Solution for Virtual University and Tele-Education

Telecommunications Consultants India Limited (TCIL) was set up by the Ministry of Communications, Govt. of India, as a Public Limited Company in 1978 to render Consultancy services and to undertake turnkey jobs from concepts to completion in all fields of telecommunications and Information Technology in India and abroad.

TCIL has rich experience and expertise in the fields of Switching, Transmission Systems, Cellular services, Rural Telecommunication, Optical Fibre based backbone transmission systems, IT & Networking Solutions, Application Software, e-Governance Networks, 3G Networks, Wi-Max Technology and also Civil construction projects.

#### TCIL provides a wide spectrum of services to fulfill its primary objectives of providing complete customer satisfaction. It involves:

- Design
- Feasibility Studies
- Network Planning & Development
- Managerial support
- Project Supervision
- Project Management Consultancy
- Engineering and Quality Assurance
- Tele-Medicine & Tele-Education
- Software Development Networks
- Human Resource Management
- Operations and Maintenance
- Implementation of Solution
- Turnkey Project Implementation
- Value Added Services
- Facility Management
- Technology Parks
- Training
- Managed Services

Right from inception, TCIL has been involved with its client to provide them state of Art solutions and services at competitive cost and thus achieved impressive growth.

TCIL has worked in over 80 countries of Middle East, South East Asia, Africa, Australia, USA and Europe and at present operating in 60 countries.

### **TCIL's Tele-education Solution**

TCIL's Tele-Education solution is an Information, Communication & Technology (ICT) based network for education including real time teaching and learning activities envisages connecting various campuses/remote classrooms of the university and affiliated colleges/remote centres through a data communication network for imparting education to the students for various program of the university/State Govt./Central Govt./ PSU. The solution comprises of four main components viz. Data Center, Studio, Virtual Class Room & Network.

#### **Network Diagram of Tele-Education Solution:**



The Tele-Education solution is based on state of art technologies and uses diverse communication networks depending on the user requirements. The solution is modular, scalable, expandable and can grow with growth of user organization. The solution envisages data centres, studios & virtual class rooms for management of lectures, lecture content, lecture studios (teacher end), virtual class rooms(student end), programmes, courses, teachers etc.

Based on the above architecture, TCIL has implemented a large number of projects for clients in India and abroad. TCIL's Tele-education Solution implemented at following locations (In over 50 Countries in Asia and Africa):

- PAN-AFRICAN E-Network Project with 170 Virtual class room in African countries.
- Virtual University Project for University of Madras, with 11 Learning Centres
- SAARC Telemedicine Network Project with 2 Learning Centres.
- **ONCONET** Project.

TCIL is also working closely with various clients for implementation of such projects to meet their requirements on different architecture technologies etc. for training and education networks.

Tele-Education solution designed & developed can be implemented for various State, Central Government, Public Sector, Universities and Large organizations for their:

- Central/State Government Training Networks
- Corporate Training Networks
- Virtual University Networks.
- Skill development

## Prestigious Projects of Tele Education/ Virtual University undertaken by TCIL

- Pan-African e-Network Project : A state-of-art world class network using MPLS network in India and VSAT network in Africa and IPLC for connecting India and Africa through submarine cable and providing Quality Education & Specialized health care services from reputed Universities & Super Specialty Hospitals in India to the 53 Member states of African Union.



With the success of Inter-Continental Pan-African e-Network, similar network are under active consideration connecting different continents/regions for propagation of Tele-Education and Tele-Medicine services.

SAARC Tele-Education and Tele-Medicine is operating in Afganistan & Nepal with IGNOU, PGI, Chandigarh and SGPGIMS, Lucknow.