



# Myanmar Networking Update



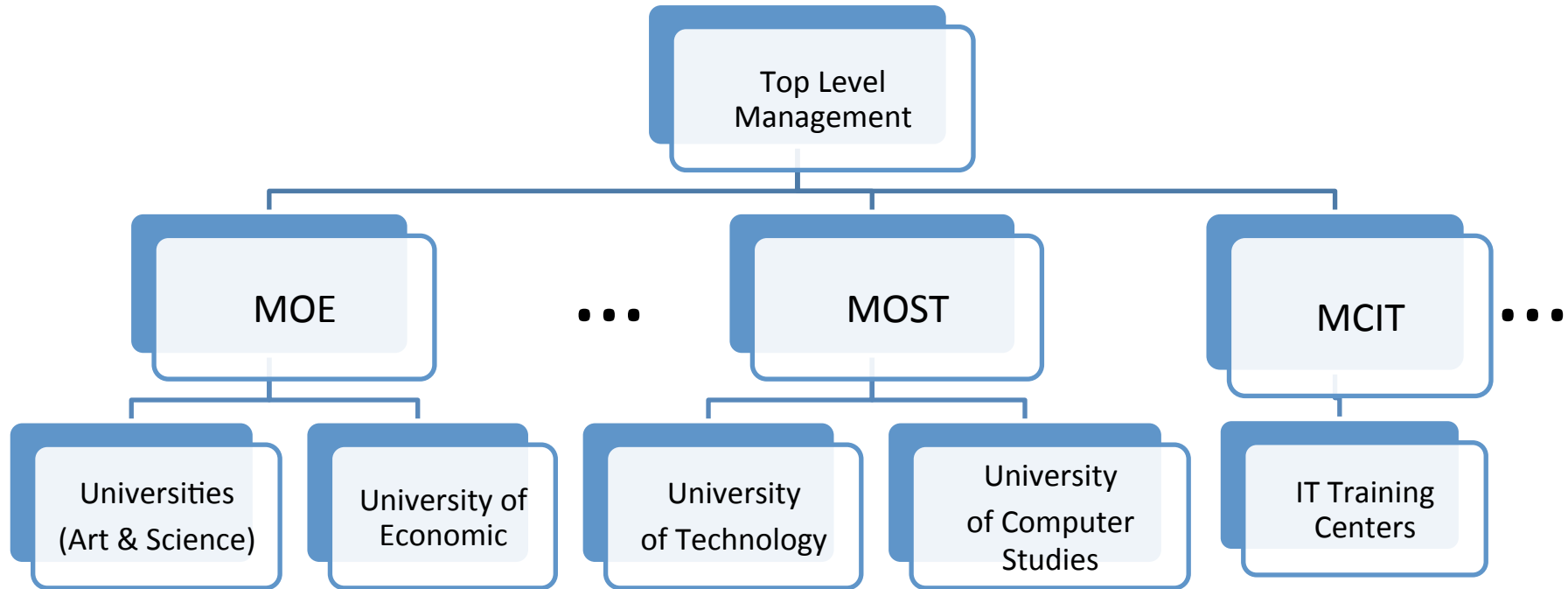
University of Computer Studies, Yangon



# Agenda

- ✿ ICT Educational Organization Structure
- ✿ Current ICT Infrastructure
- ✿ Current state of University Teaching
- ✿ Research & Development
- ✿ Developments in progress for enhancing campus
- ✿ Establishing National Research and Education Network

# ICT Educational Organization Structure



**We are here**



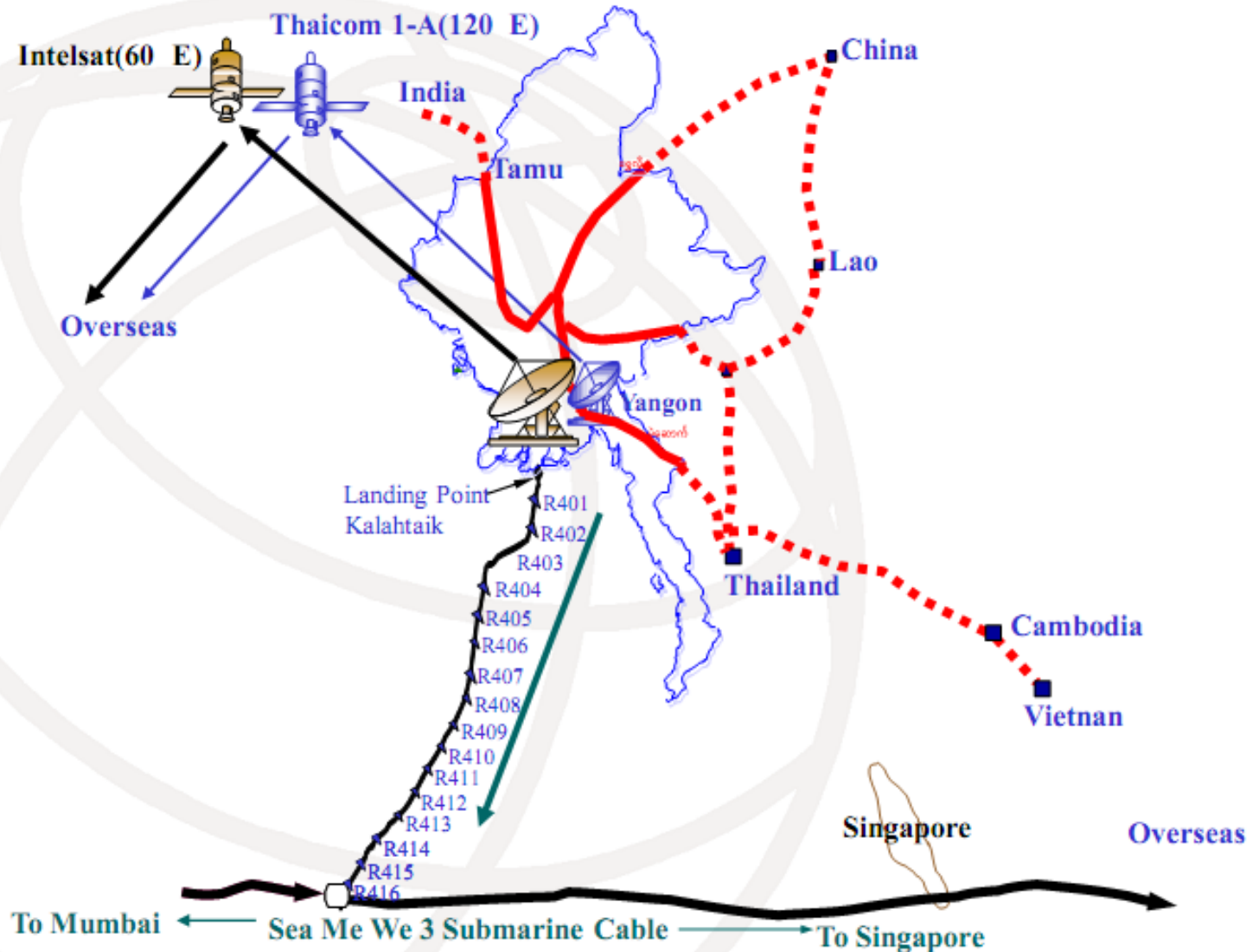
**UCSY**

MOE – Ministry of Education

MOST – Ministry of Science & Technology

MCIT - Ministry of Communication & Information Technology

# Border Link Communication Network Diagram



# Current ICT Infrastructure

- Internet Service Provider (ISP)
  1. Myanmar Posts and Telecoms (MPT)
  2. Yatanarpon ISP
- National backbone : Fiber link between major cities
- Narrowband Access
  - Dial-up, Access kit
- Broadband Access
  - ADSL, Wi-Max, Optical Fibre, Satellite (ipStar, Thaicom5, VENASAT)

# Cyber Security

**mmCert** : under Ministry of Communications and Information Technology

- Myanmar Computer Emergency Response Team
- a single point of contact for dealing with cyber security incident in Myanmar
- works to increase public awareness in security
- supports technical advisories in our community

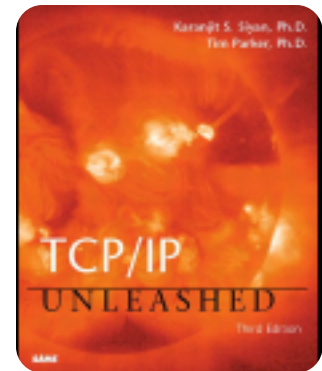
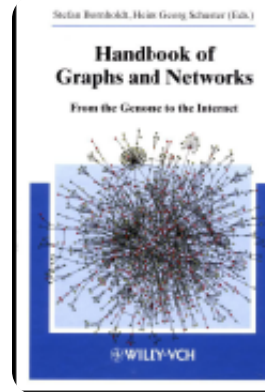
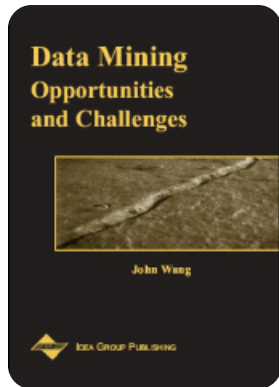
<http://www.mmcert.org.mm/>

# Teaching Methodology

- Change Theoretical Oriented approach to Practical Oriented approach
- Apply Public, Private and Partnership approach
- Join with industrial sector (both national companies and international companies)

# Languages used in Study

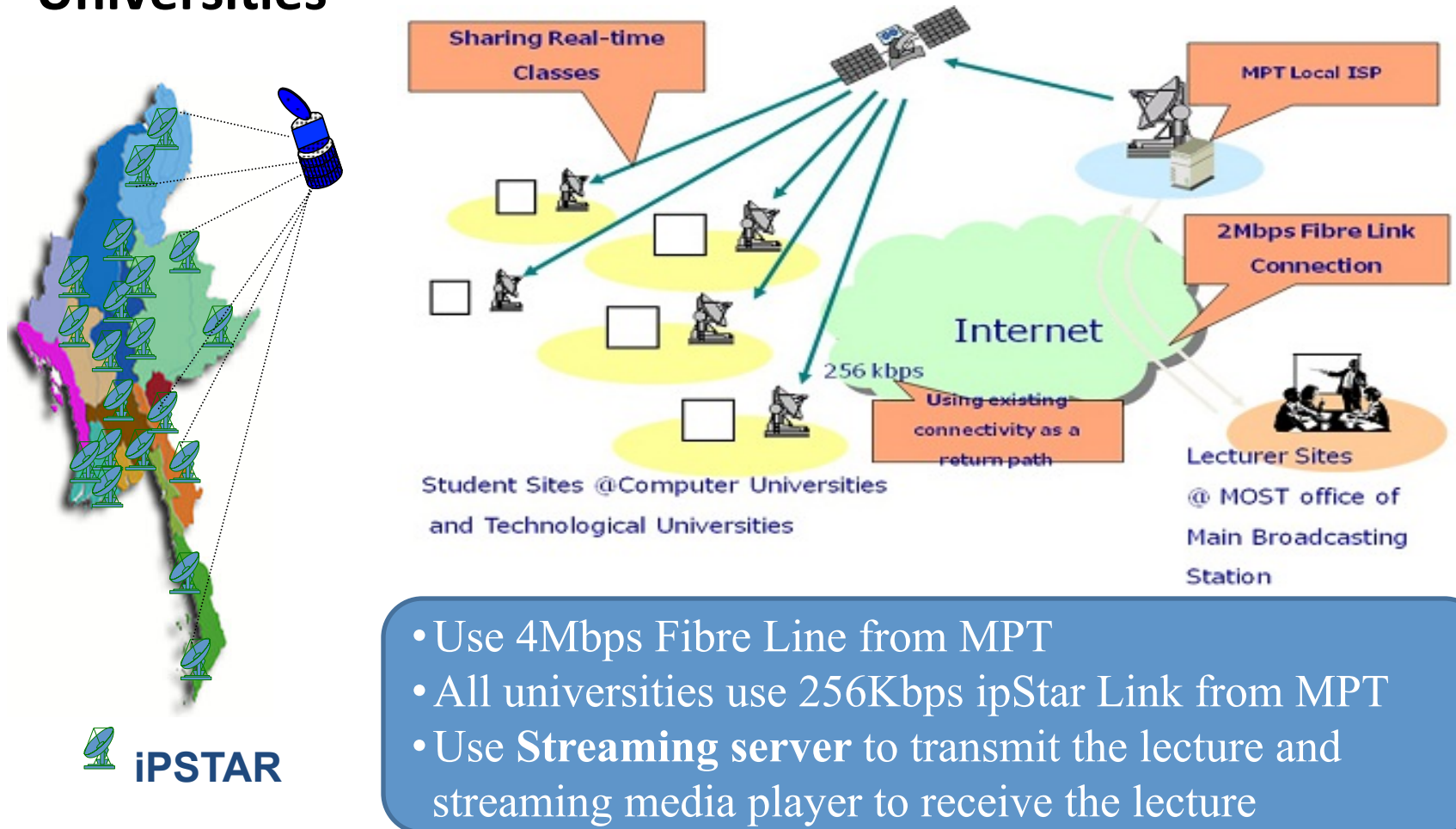
- All Textbooks and References are written in English
- Native Language is only spoken in detail explanation during lecture time
- Reports, Seminars, Assignments are conducted in English





# Distance Learning

- Online Teaching and Learning System among Computer Universities



- Web-based Teaching System in Yangon University

# ICT Training Centers under the Ministry of Science and Technology

- Information and Communication Technology Training Institute 
  - established in 2006
  - joint with JICA, Japan
- India-Myanmar Center for Enhancement of IT Skills
  - established in 2008
  - joint with India Government



# Network Status at Computer Universities

- **UCSY** has 2 dedicated line from MPT
  - Fiber Optic, E1 connection, Wi-Max connection
- **UCSM**
  - ipSTAR Satellite Connection, Fiber Optic
- **All universities** have internet access through
  - *ipStar Satellite Communication*
- **No intranet connection** between all computer universities

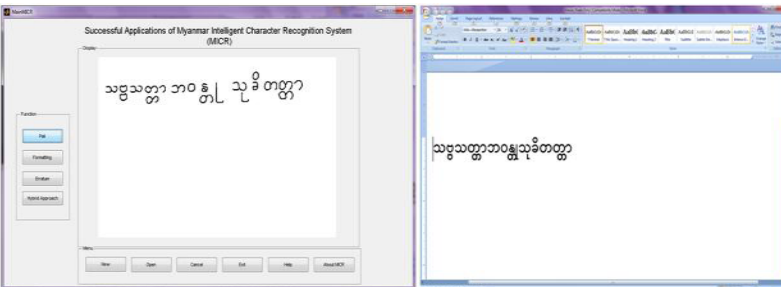
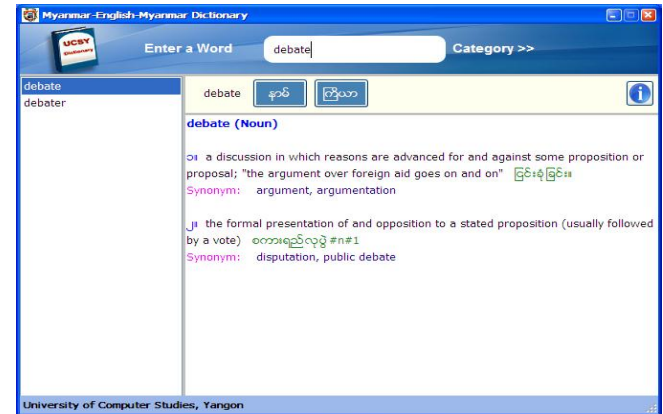


# Research and Development in UCSY

## 1. Natural Language Processing

- Myanmar-English Myanmar Bilingual Dictionary
- English-Myanmar Machine Translation System

<http://www.nlpresearch-ucsy.edu.mm>



## 2. Image Processing

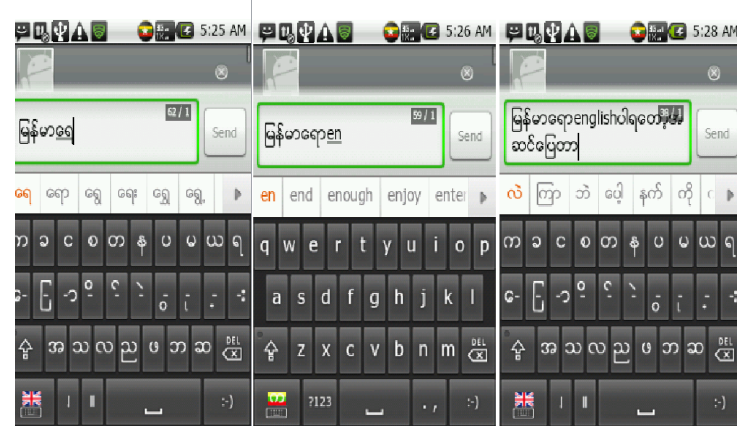
- Myanmar Intelligent Character Recognition (MICR) and Myanmar Voice Mixer (MVM) System
- Automatic Identification System of Myanmar National Registration Card (NRC) Holder based on Biometric Information

# Research and Development in UCSY

## 3. Mobile Computing

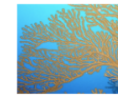
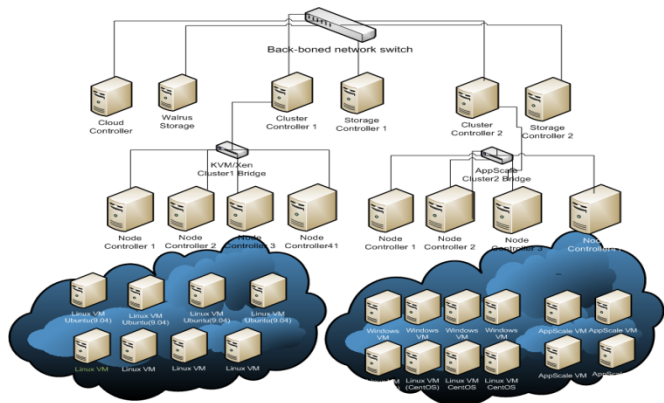
- iTextmm (Myanmar Text Input for Mobile Phone)
- Context-Related Access Control Mechanism
- Context aware Location-based Service

<http://www.ucsy.edu.mm>



## 4. Virtualization and Cloud Computing

- UCSY Private Cloud System (Open Source)



AppScale

## 5. Open source Web portal

# Developments in progress for enhancing campuses

- International Co-operations
- Future International Co-operations
- Expectations



# International Cooperation Activities and Events



**International Conferences on Computer Applications  
(ICCA)**

# International Cooperation Projects



## ▶ **School on Internet Asia (SOI Asia) Project**

- ▶ develops distant learning applications for the advanced usage of the Internet as a tool of higher education.

## ▶ **Asian Internet Interconnection Initiatives (AI3) Project**

- ▶ joined together with KEIO University, other Asian partner universities and UCSY
- ▶ aims to research and develop the Internet technologies
- ▶ 2011 AI3/SOI Asia Autumn joint Meeting is held at UCSY in the last November.





# International Cooperation Project

## ▶ **SEACOOP Project**

- ▶ Supporting policy dialogues and strengthening cooperation between Europe and Southeast Asia in ICT

## ▶ **Recent Activities**

- ▶ The 6<sup>th</sup> SEACOOP Cooperation Forum on ICT Research and ICT for Development is successfully celebrated at Myanmar on October 25, 2011.
- ▶ A TEIN3 workshop organized by UCSY and DANTE under the aegis of MOST and EU to connect the REN community to the World on May 2012.

# One Day in Asia Event

CONNECT-Asia Presents:

## ODIA

One Day in Asia

Thursday, 01 November 2012

14:00 -16:00 Jakarta Time (GMT+7)



United Nations  
Educational, Scientific and  
Cultural Organization



### ODIA Features:

- Pakistan
- Patan Durbar Square (Nepal)
- Shwedagon Pagoda (Myanmar)
- Angklung (Indonesia)
- Melaka & George Town (Malaysia)
- Kamakura (Japan)
- Uam Historical Park (South Korea)
- Sydney Opera House (Australia)



<http://connect-asia.org/>

# International Cooperation

- ▶ UCSY join to **Network-based ASEAN Language Translation for Public Service Project** proponent by **NECTEC, Thailand**.
- ▶ National Advance IPv6 Centre, **University Sains Malaysia** offers UCSY to carry out research collaborations concerning IPV6, next generation internet technology.
- ▶ Scholarship Program and Training of Trainers (TOT) Program by Nippon Telegraph and Telephone **(NTT) Data Corporation, Japan**.

# Future International Cooperation

- ▶ Translation post-editing system for multilingual information access and language learning, Linton University College, Legenda Education Group, **Malaysia**.
- ▶ UCSY is trying to join to the **TEIN3 / TEIN4** network to support researches and development in Myanmar and to enhance international cooperation

# First Step to Enhance Campus Networks

## Cooperation with National Startup Resource Center (NSRC), University of Oregon, USA

- ▶ Upcoming event on 2013 March
  - ▶ Technical assistance & Group Workshop Program for participants from all Universities in Myanmar

### **Objectives**

- ▶ To develop the human network
- ▶ To provide direct engineering assistance in the physical development of campus networks
- ▶ To improve network access and infrastructure

# Expectation

- To build advanced research center with the initial guidance of knowledgeable and skilled experts from developed countries
- To setup campus networks in Universities and improve internet access connection.
- To implement Cyber Security and Forensic Computer Crime Investigation Laboratory as security is an important issue in ICT environment

# Establishing Myanmar NREN

- Motivate Universities to participate in Myanmar NREN by sharing knowledge and technology such as providing training and awareness workshop
- Need a good coordination and collaboration among Universities and research organizations
- Support IT & develop campus network for research and education activities

**Thank you**