



Introduction of ICT Development in UCSY



Myint Myint Sein

Research and Development Department, UCSY
Ministry of Science and Technology

1971, UCC(Universities' Computer Center)



Hlaing Campus

- provide computer training to university and government employees.

-Offered Post Graduate
Diploma
and
Master Degree
(1973~)

Yangon University, Ministry of Education

1988, ICST (Institute of Computer Science and Technology)



Hlaing Campus

**Post Graduate
Diploma**

Master Degree

**Bachelor
Degree(1993~)**

1998, UCSY (University of Computer Studies)



ShwePyiThar Campus

Offered
graduate diploma in
ICT field.

 Bachelor Degree

 **Master Degree**
and

 **Doctorate Degree**
(start 2001)

2004~2006

Computer Universities

Lower Myanmar

1. UCSY
2. Maubin
3. Hinthada
4. Patheingyi
5. Sittwe
6. Kyaingtong
7. Pyaw
8. Taungtha
9. Thaketa
10. HpaAn
11. Dawei
12. Myeik

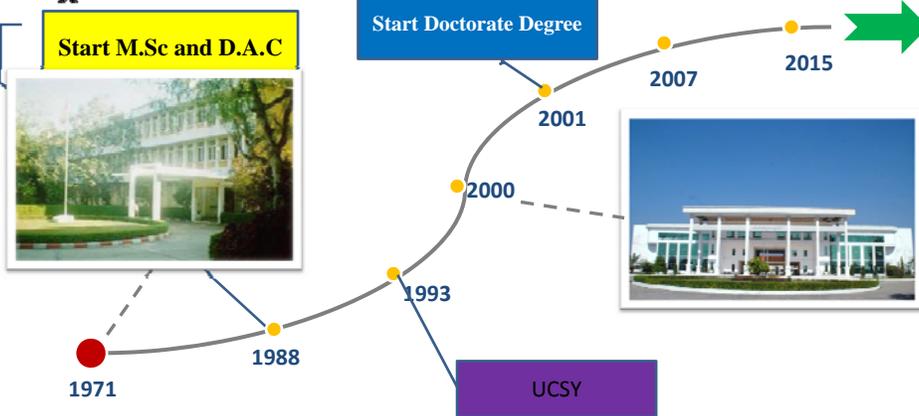


Upper Myanmar

1. UCSM
2. Mandalay
3. Myittha
4. Bamaw
5. Kalay
6. Monywa
7. Magway
8. Pakokeku
9. Meiktila
10. Lashio
11. Taunggyi
12. Pinlon
13. Loikaw



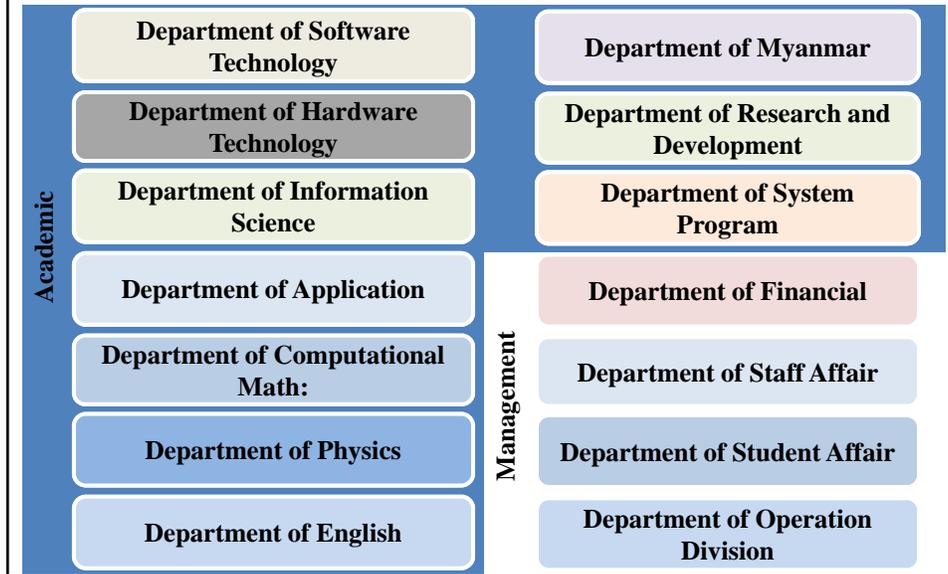
Roadmap of UCSY



- In 1971, it was founded as UCC, the Universities' Computer Center.
- In 1988, it was established as Institute of Computer Science and Technology (ICST).
- On July 1, 1998, the Institute was changed to University of Computer Studies, Yangon under management of Ministry of Science and Technology.

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Organization Structure of UCSY

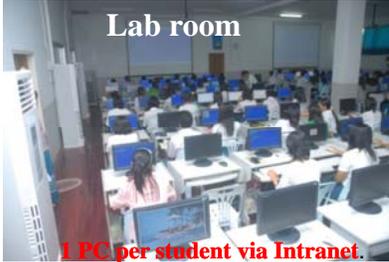


Teaching Materials





Language Lab



Lab room

1 PC per student via Intranet.





Libraries,
Digital Libraries,

Laboratory at UCSY

- University of Computer Studies, Yangon : provides
 - Software Lab,
 - Hardware Lab,
 - Language Labwith Internet facilities



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Digital Library, Digital Reading Room & Digital Studio



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Teaching Methodology

Practical Oriented Lecture



Online course management system



Regular Class Room

English FOUR Skills Lab



Self-study in Library



ICT HRD Situation (1988 ~ 2013)

Degree	Computer Science	Computer Technology	Total
Bachelor	21,103	5,485	26,588
Honors	8,447	1,826	10,273
Master	2,337	535	2,872
Ph. D	178	54	232
Total	32065	7900	39,965

The Students for the 2014-2015 Academic Year

Ph.D (Thesis)		Ph.D (Course Work)		M.C.Sc (Course Work)		M.C.Tech (Course Work)		M.C.Sc (Thesis)		M.C.Tech (Thesis)		B.C.Sc (Forth yrs)		B.C.Tech (Forth yrs)		B.C.Sc (Third yrs)		B.C.Tech (Third yrs)		B.C.Sc (Second yrs)		B.C.Tech (Second yrs)		First Year			
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
1	29	2	36	7	50	5	18	13	215	7	41	66	436	13	21	144	491	17	23	211	322	39	15	268	246		
Total				2736																							



Research and Development

1. Natural Language Processing

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

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

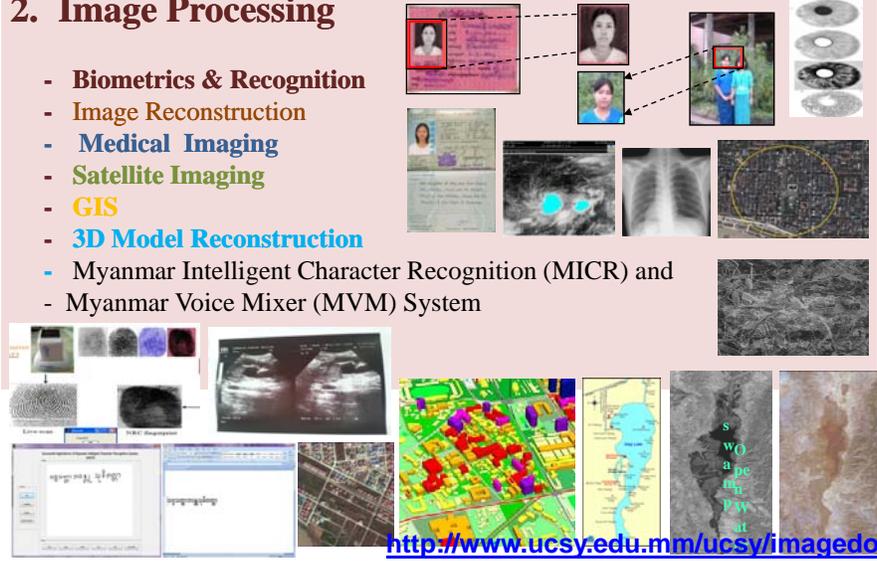


Research and Development

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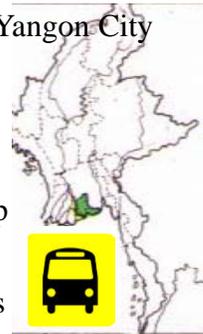
2. Image Processing

- Biometrics & Recognition
- Image Reconstruction
- Medical Imaging
- Satellite Imaging
- GIS
- 3D Model Reconstruction
- Myanmar Intelligent Character Recognition (MICR) and
- Myanmar Voice Mixer (MVM) System



National Geo-Spatial Data Infrastructure (NSDI) Development Project

- Recently, we do the research related to GIS for Yangon City region
- This research area contains
 - location based services
 - traffic management & finding optimal loop
 - the investigation of urban growth
 - the detection of the environmental changes
 - three dimensional city model and so on



Result of the Searching Service

User Current Location

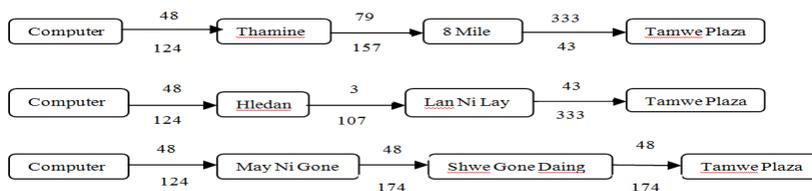
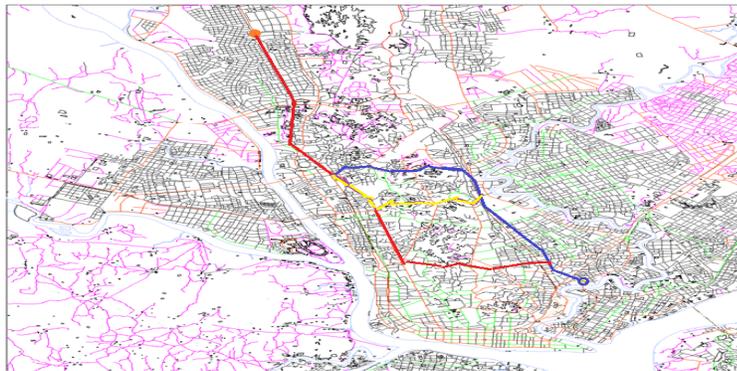
Latitude: 16.78555443590721
 Longitude: 96.15444660186768
 Address: Bo Yar Nyunt Road, Yar

Keyword: bank
 Range Query: (Range in km)
 KNN Query: (Number of Objects)
 Sort By: Distance

Name	Address	Phone No.	Distance (Km)
Myanmar Oriental Bank (PhoneGylLan branch)	110, Phone Gyl Lan, Yangon, Myanmar	01-222975	0.67305
Yoma Bank (Phone Gyl Street branch)	80/82, Phone Gyl Street, Yangon, Myanmar	01 211563	0.67305
Myawaddy Bank (LanThit Street branch)	59, Lan Thit Street, Yangon, Myanmar	01-647500	0.76342
Co-Operative Bank (CB Bank) (Lanmadaw branch)	797, Maha Bandoola Road, Yangon, Myanmar	01 212125, 222982-3	0.78371
Yoma Bank (Lan Thit Road branch)	38, Lan Thit Road, Yangon, Myanmar	01 640020	0.78562
Ayeyarwaddy Bank (Lanmadaw branch)	778, Corner of Mahabandoola Street and 14th Street, Yangon, Myanmar	01 218467-471	0.85793

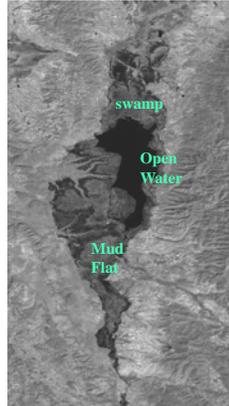
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Searching Bus Transit Information



Investigating the Open Water Area

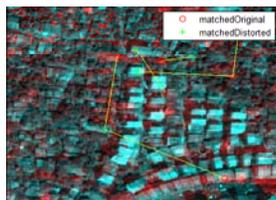
The contemporary changes in open water surface area of **Inlay Lake** are investigated from satellite images (See following Figure).



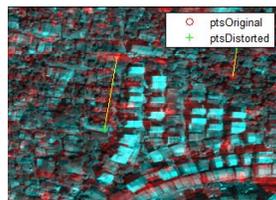
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Urban Change Detection

The automatic change detection system is developed for analyzing the growing of the urban area within ten years.



(a) Putative matched points (including outliers)



(b) Matching points (Inliers only)



(c) Registered Image

3D Urban City Model

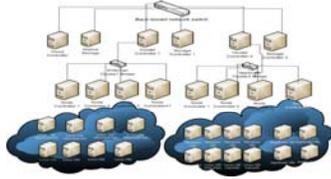


Research and Development

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)

5. Open source Web portal

- 6. [Wireless Sensor](#)
- 7. [UCSY e-Groupware System](#)
- 8. [UCSY Online Library Management System](#)
- 9. **Web mining**
- 10. **Information Retrieval,**
.....

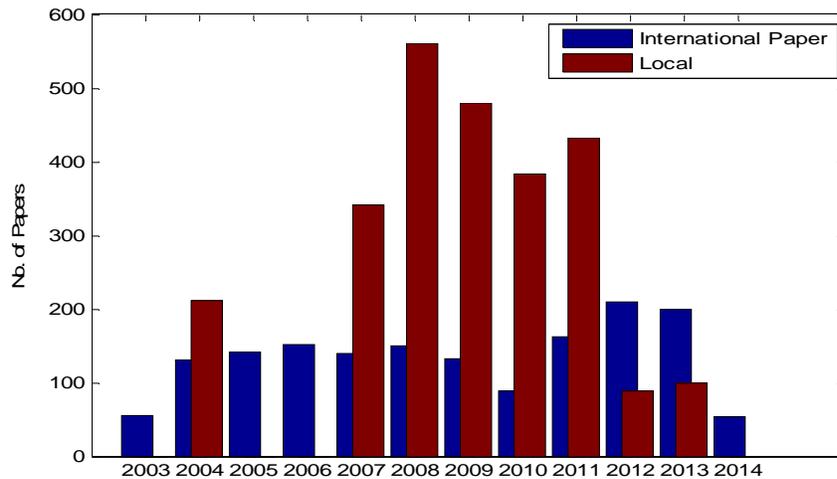
International Cooperation Activities and Events



**Local Conference
On Parallel and
Soft Computing
(PSC)**

International Conferences on Computer Applications (ICCA)(Since 2003)

Achievement



Award Achievements

International Level Award

- UCSY and UCSY NLP Lab are recognized at the 24th International Quality Convention, London, November, 24-25 2012 with **International Quality Crown Award (2012)** by Business Initiative Direction (BID), Spain.

State Level Awards

Excellent Performance in Administrative Field(First Class) at 2008

Excellent Performance in Science (Third Class) at 2008

Other Awards

- UCSY took part in MCPA project competition 2011 by Online-library system project and the project won **Special Mention Award of Business Application 2010**.
- **ICT business plan contest 2011** was held by Myanmar Computer Professionals Association in October in collaboration with CIESF. The contest title was divided into three mobile-related categories: medicine, education and social networks. In this competition, Ms. Nandar Pwint Oo, got **the first prize in ICT Business Plan Contest for year 2011** with the title of "Market5" and won USD 3,000. Market5 was competed in the sub category of mobile social networks. The second year students also achieved **MCPA excellent awards** in 2011.

Activities at UCSY



Female novice-hood Ceremony



Blood donation activities



Moonson season growing plants



Sports activities



The training for RedCross

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International Collaboration

- 🏛️ National Institute of Information and Communications Technology (NICT), Japan
- 🏛️ Cisco Networking Academy
- 🏛️ Nagaoka University of Technology (NUT), Japan
- 🏛️ Keio university, Japan
- 🏛️ Hankuk Aviation University, Korea
- 🏛️ Konkuk University, Korea
- 🏛️ Universiti Sains Malaysia (USM)
- 🏛️ Center for Development of Advanced Computing (CDAC, India)
- 🏛️ Assumption University, Thailand
- 🏛️ King Mongkut's University of Technology, Thailand
- 🏛️ Griffith University, Australia
- 🏛️ Saitama University, Japan
- 🏛️ Miyazaki University, Japan

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UCSY – Industry Linkage

 JICA (Japan International Cooperation Agency)	 WITTS Technology , Japan
 Nippon Telegraph and Telephone Data Corporation (NTTD), Japan	 SAT Co.Ltd
 Doraku Holdings, Japan	 Myanmar Pou Chen
 Acroquest Myanmar	 Being Myanmar
 Myanmar Computer Professional Association(MCPA)	



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Challenges of UCSY

-  To provide qualified ICT professionals to support Industry and application areas, UCSY has planned to upgrade its curriculum to keep barest with other universities.
-  Need to train the faculties and also need to foster research personnel.

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Proposed Possible Solutions

- To establish an international cooperation network between UCSY and other Universities and Societies.
- To build connection among students, teachers and universities, share information and resources, and prepare learners for knowledge-based societies.