

**Computer Communications Lab.
The University of Aizu**

Winter Camp 2012

March 17-18, 2012

Daikura Resort, Minami Aizu, Fukushima



Schedule

- **Date and Time** : Saturday, March 17, 2012 (7:15:00am) - Sunday, March 18, 2012 (18:00 pm)
- **Place** : Resort in Daikura
- **Member** : Prof Pham's family , Prof Thang, Mr Ninh, Student: Thang, Bach, Duy, Cuong, Hoc .

Saturday, March 17 ,2012	
	Preparation and live for Resort in Daikura
7:15 - 7:20	- Meetplace: In front of Somei house (Eat enough before going)
7:20 – 7:50	- Leave for Aizuwakamatsu Station (By car)
8:00 – 9:00	- Leave for Tajima station 61.4 Km from Aizu (1 hours 5 minutes by train)
9:00 – 9:30	- Leave for Daikura Ski Resort (By car of Daikura Ski Resort)
	Fist day for skiing
9:30 – 10:00	- See map of Resort in Daikura
10:00 –11:00	- Time for lunch
11:00 – 11:40	- Time for rest
11:40 – 12:00	- Skiing equipment Rental
12:00 – 16:00	- Time for skiing
16:00 – 16:20	- Leave for hotel and check in <u>Student Card (free lift ticket)</u>
16:20 – 18:00	- Take a bath - Relaxation
18:00 – 19:00	- Dinner : Japanese style course
Sunday, March 18 ,2012	
	Preparation and metting in conference room
6:30 - 7:15	- Get up
7:15 – 8:15	- Take breakfast
8:30 – 9:00	- Prepare equipment for meeting (By Student : Thang, Hoc, Bach, Duy, Cuong)
9:00 – 9:15	- Check out

<p>9:15 – 11:15</p>	<p>Technical Program at the meeting room (to be confirmed later)</p> <p>9:15—9:30AM: Nguyen Tat Thang, “The Commanding Center for the Wireless Mesh Network-based Disaster Management Support system”.</p> <p>9:30—9:45AM: Vu Trong Bach. “ iPhone Client Software for Wireless Mesh Network Based Disaster Emergency Support System”.</p> <p>9:45—10:00AM: Nguyen Xuan Hoc. “Video quality valuation and birtate prediction in Adaptive Streaming</p> <p>10:00—10:15AM: Phan Lac Cuong. “Adaptive Media Streaming over HTTP”.</p> <p>10:15—1030AM: Luong Anh Duy. “Implementation of Wifi/Bluetooth gateway and New Transport protocol design for Wireless Mesh Network-based Disaster Management Support System”.</p> <p>10:30—10:45AM: Bui Trung Ninh. “Introduction of the Research Plan on the Effects of EDFA Noises on the Performance of Multi-wavelength OCDMA Systems”.</p>
<p>11:15 – 12:00</p>	<p>- Time for lunch</p>
<p>12:00 – 12:20</p>	<p>- Time for rest</p>
<p>12:20 – 12:30</p>	<p>- Skiing equipment Rental</p>
<p>12:30 – 15:30</p>	<p>- Time for skiing</p>
<p>15:35 – 16:17</p>	<p>- Leave for Tajima station</p>
<p>16:17 – 17:30</p>	<p>- Leave for Aizuwakamatsu station</p>
<p>17:30 – 18:00</p>	<p>- Back to UoA</p>

Abstract of Presentation

Nguyen Tat Thang, “The Commanding Center for the Wireless Mesh Network-based Disaster Management Support system”.

My presentation will focus on the functionality of the Disaster Rescue Administration System. The administration system include server-side software which have the role of collecting, processing and storing data and client-side web-based application which monitor the process of Disaster Rescue. The main techniques have been used on server-side are Apache Server Software, SQL DBMS and the PHP script language for data controlling and generating dynamic content web page. At client-side, javascript has been used to empower the friendly user interface. For some future work proposals, I want to propose some ideas about multi-interface monitoring system and some developments of user interface.

Vu Trong Bach. “ iPhone Client Software for Wireless Mesh Network Based Disaster Emergency Support System”.

Our purpose is implement a Wireless Mesh Network based Disaster Emergency Support System(WMN based DESS). In this report, we present a iPhone Client Software possible to get victim's location by using GPS data and communicate with Disaster Emergency Support System using UDP protocol. We also propose message format design that minimized message size and effective warning for communication in our WMN based DESS. Live video streaming with network camera will be mentioned as the additional part to support Disaster Emergency Support System to find out victim's location easier.

Nguyen Xuan Hoc. “Video quality valuation and birtate prediction in Adaptive Streaming

DASH (Dynamic Adaptive Streaming over HTTP) recently is developed by MPEG as a new streaming standard . As one high layer of this system, my work in video quality valuation subjective test find out which version should be generated to support adaptation. we investigate, through subjective tests, the number of JND (Just Noticeable Difference) levels existing in the practical quality range of streaming video content. On other hand, In effort of decreasing the latency in live streaming service , which my laboratory focus in, many methods are proposed by Prof. Thang . Taking one of them, I study bitrate prediction for video streaming and streaming with multi-servers as methods to decrease this latency time. By combine with Cuong's result in analysis of throughput estimation, we archived 4 seconds latency as the first result in the progress of combination of all impossible methods. These results make me confident to keep going on live streaming study.

Phan Lac Cuong. “Adaptive Media Streaming over HTTP”.

Nowadays, adaptive streaming over HTTP has become new standard for multimedia delivery. In this streaming technique, the server maintains multiple profiles of the same video, encoded in different bitrates. The video is partitioned in segments which typically has duration of few seconds. Therefore, the player can request different segments at different bitrates, depending on the network situation. Our work is analyzing and optimizing some network throughput estimating mechanisms, to help the player chooses video segments at appropriate bitrates. On the other hand, we also focus on live streaming service which requires small end-to-end delay. Our goal is to decrease end-to-end delay down to 4 seconds.

Abstract of Presentation

Luong Anh Duy. “Implementation of Wifi/Bluetooth gateway and New Transport protocol design for Wireless Mesh Network-based Disaster Management Support System”.

In our project an “Emergency System” has constructed. The system collects and manages position and status of people for emergency purposes. The mesh-network plays the role of a core-network. In this report, we present a prototype gateway that we have implemented. This gateway allows Bluetooth enabled devices to communicate with the remote server through the mesh network. We also propose a format of data and a protocol for communication between devices, gateway and remote server. Performances are discussed for high packet loss situation of mesh network. The results show that using UDP and reliable data transfer protocol in application layer is better than TCP in term of throughput.

Bui Trung Ninh. “Introduction of the Research Plan on the Effects of EDFA Noises on the Performance of Multi-wavelength OCDMA Systems”.

We know, Erbium Doped Fiber Amplifiers (EDFA's) became a key enabling technology for optical communication networks. The purpose of this presentation is to provide an introduction to EDFA technology. The report begins with the basics of the technology, and then goes on to discuss some of its important parameters, such as amplifier gain, amplified spontaneous emission (ASE), noise figure, and so on. For some future work proposals, I want to research about the effects of EDFA noises on the performance of multi-wavelength OCDMA systems.

Work Assignment

- **Photographer** : Thang and Hoc
- **Prepare equipment** : Thang, Bach and Duy

2. Notes and prepare equipment

- Please wear the comfortable cloths. Please bring a towel and gloves .
- Prepare projector , computer , electrical socket , decorate for conference room, Mesh route, [Student Card \(free lift ticket\)](#)
- If you have some skiing equipment or skiwear , please bring it.

3. Service of Resort in Daikura

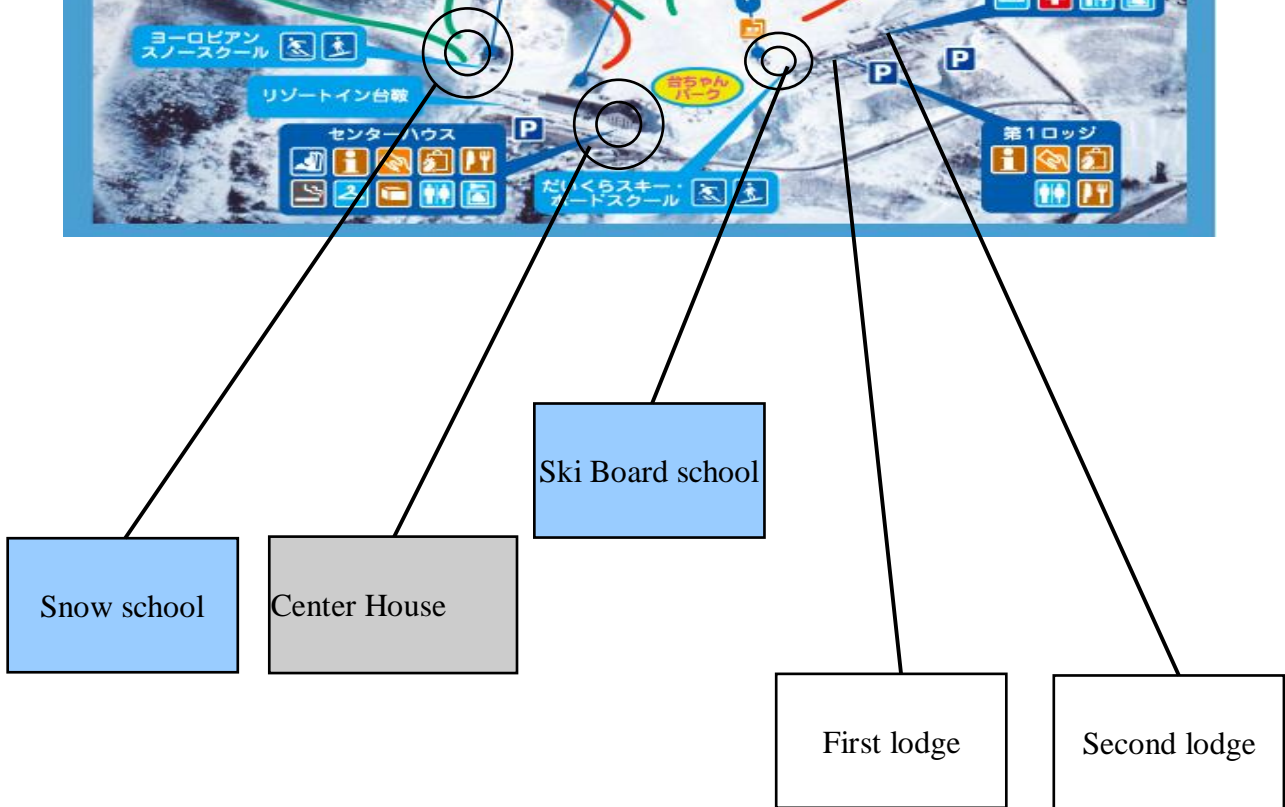
- Skiing equipment Rental fees : 3000 円(ski) + 3000 円(skiwear) = 6000 円(1人日)
- Hotel price : 1 0500 円/人
- Travel price : 1610円×2回=3220 円人
- Hotel price +Travel price : 1 0500 円 + 3220 円= 1 3720円/人
- Conference room
- More information at site : <http://www.daikura.net/resort/index.html>
- Phone : 0241 64 2011

4. Some pictures about Resort in Daikura



Route from UoA to Resort in Daikura 61.4 Km

Skiing Course



Ski Course and Resort in Daikura



Facility of Resort in Daikura



大浴場 男湯・女湯

みんなと一緒に入る大浴場は、楽しみのひとつ。サウナもあり、一日の疲れを癒しましょう。シャンプー・リンス・ボディソープは、自然にやさしい無添加素材です。



売店（センターハウス）

スキーシーズンは、センターハウスをご利用ください。スキー小物類やだいくらオリジナル商品、地元物産等を取り揃えています。



レンタルショップ

スキー・スノーボード用品のレンタルをいたしております。その他にも、スキー板やスノーボードのチューンナップ等も有料にて行っております。

※冬季のみの営業となります。



フロント

チェックイン、チェックアウトの受付や観光案内、困ったときの相談窓口はこちらですので、お気軽に声をおかけください。



ラウンジ

新聞やテレビなどで、ご自由に、おくつろぎください。



喫煙所

館内は喫煙所を除いて、すべて禁煙となっております。お客様のご理解とご協力をお願いします。喫煙所は、2F・3F廊下突き当たりとセンターハウス風除室にございます。