Student Exchange Support Program in FY2018 between NUCE (National University of Civil Engineering, Hanoi) and SU (Saitama University)

Date: 2019/2/17-2/27

Venue: Saitama University

Participants (from National University of Civil Engineering, Hanoi):

Mr. Pham Van Nam (M1), Mr. Phan Ngoc Hiep (M1) and Mr. Ngo Trung Phuong (M1)

Schedule in Japan

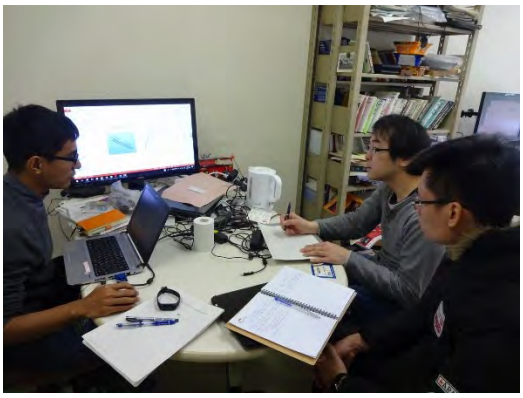
2019/2/17: Arrive at Saitama

2019/2/18-19: Join final defense of master course students

2019/2/20-26: Study in each supervisor's laboratory(Nam: Prof. Kawamoto, Phuong: Prof. Kubota and Hiep: Assoc. Prof. Asamoto)

2019/2/27: Return to Vietnam

Photo

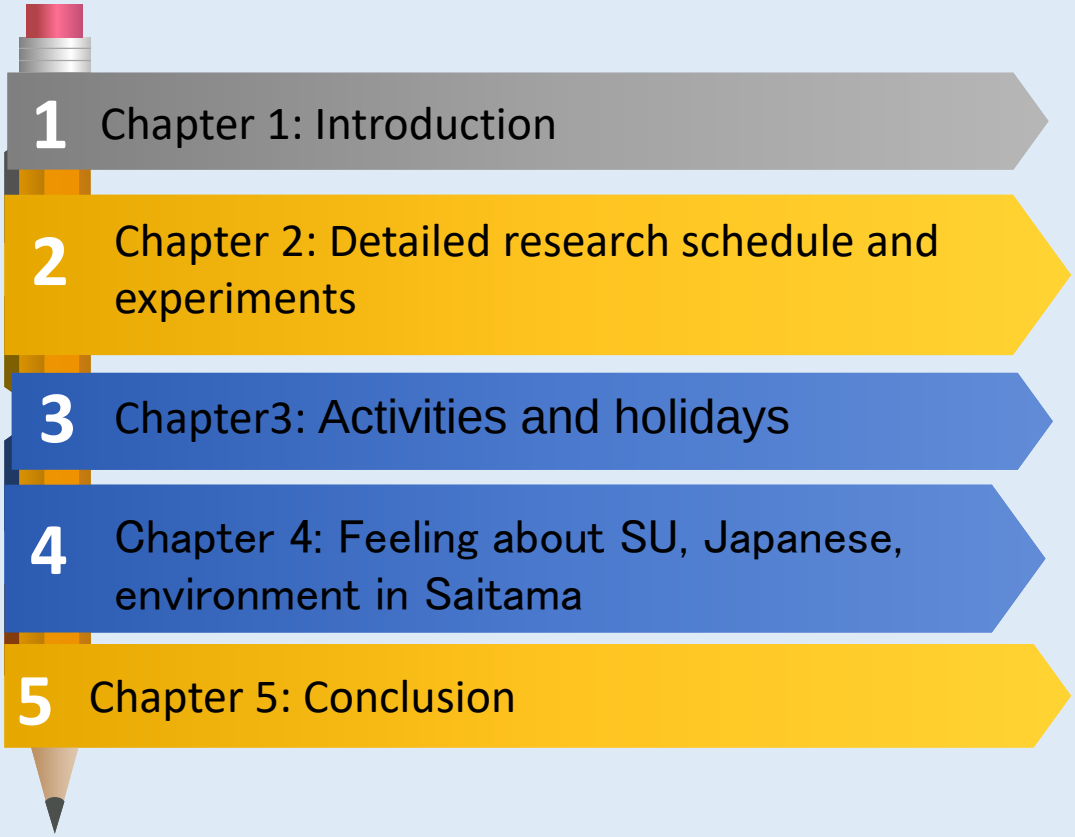


CHAPTER2: MASS CONCRETE PROBLEMS AND SOLUTIONS

Pham Van NAM[1], Ken Kawamoto[2], Akihiro Matsuno[2]
1 National university of civil engineering, Viet Nam
2 Saitama University, Japan

- I would like to express my sincere gratitude to my supervisor, Professor Ken Kawamoto for his support, for his motivation, for his enthusiasm and immense knowledge, as well as Akihiro Matsuno- project researcher.
- I would like to thank my co-supervisor, my teachers, my co-worker, my friends and International Cooperation Center for Education and Consultancy of NUCE

JASSO EXCHANGE PROGRAM FOR JOINT MASTER COURSE STUDENTS REPORT



STUDENT: PHẠM VĂN NAM

1. Introduction

- Jasso stands for Japan Student Services Organization which was founded on April 1, 2004

- Scholarship programs for Japanese students is about 1062.8billion JPY
- Scholarship programs for International students is about 15.3 billion JPY
- Student support programs is about 100 million JPY
- - Student exchange support program: Scholarship for short-term study in Japan: FY2018 Budget: 1600 million JPY/5000 students, this scholarship is provide to international students who study in Japanese universities for a short tern of between eight days and one year under university student exchange agreement.

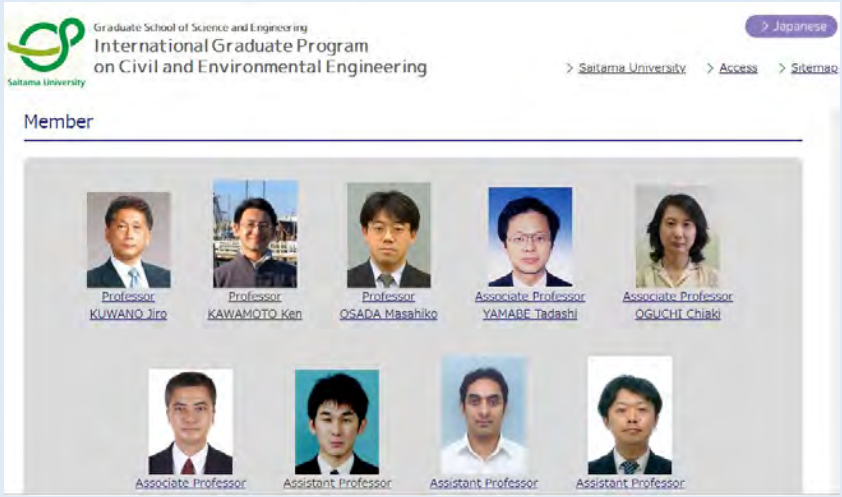
1. Introduction

- The Joint master program between National University of Civil Engineering (NUCE) and Saitama University (Japan) is carried out in accordance with Decision No. 2378 / QD-BGDĐT of the Ministry of Education and Training on July 8, 2015. There are 4 generations until now 2019, and I am a 4th generation of joint master student of this program.

- A joint seminar between National University of Civil Engineering (NUCE), Vietnam and Saitama University (SU) was held at NUCE on Sept. 24

1. Introduction

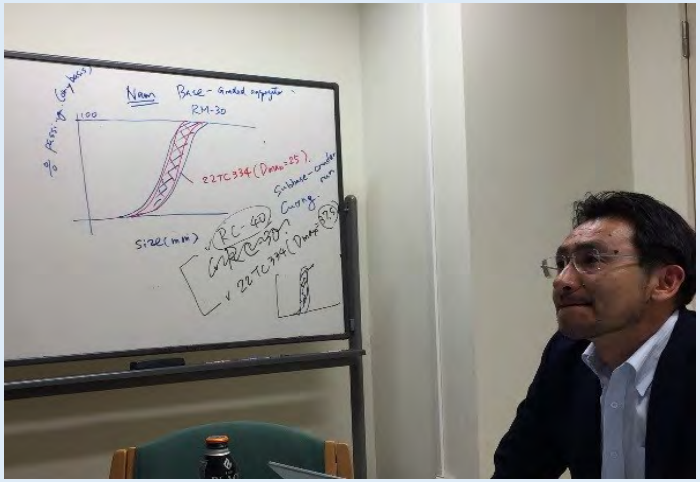
- As the only one national university established in Saitama Prefecture, Saitama University's history begins a century ago
- Saitama University has long been established as a respected national university within Japan
- Geo-environmental engineering: " covers research topics related to environmental risk assessment at contaminated ground, development of site-specific appropriate techniques for pollution control, measurements and models for water, gas, solute, heat transport in soil, and characterization of soil structure and pore networking.



2. Detailed research schedule and experiments

Orientation by Prof Ken Kawamoto.

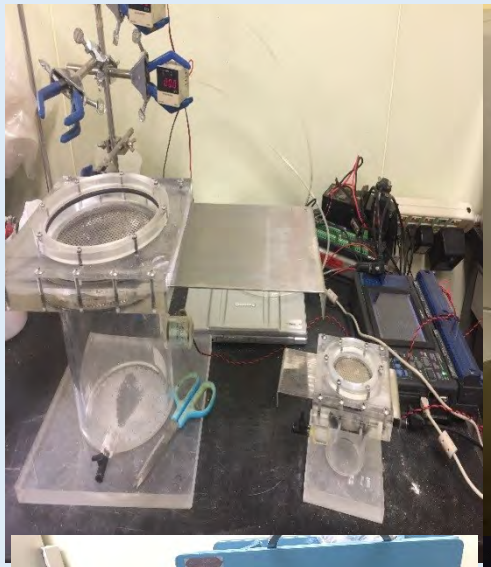
- On Monday, 18th of Feb, 2019,, I had a meeting with Professor Ken Kawamoto, Matsuno san (Project researcher) and tutor Cuong san at Professor Ken Kawamoto's office.
- Here, we discussed about our schedule for up- coming days in Saitama University. We also was talking about my topic and was talking about updating my proposal research
- These meeting to orientate lasted for 3 days from 18th to 20th of Feb, 2019

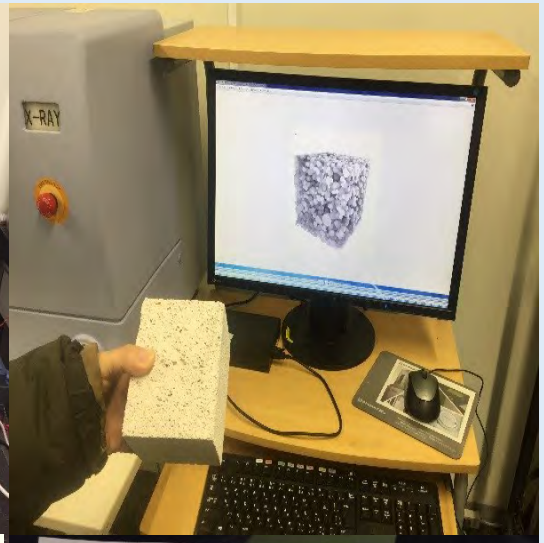


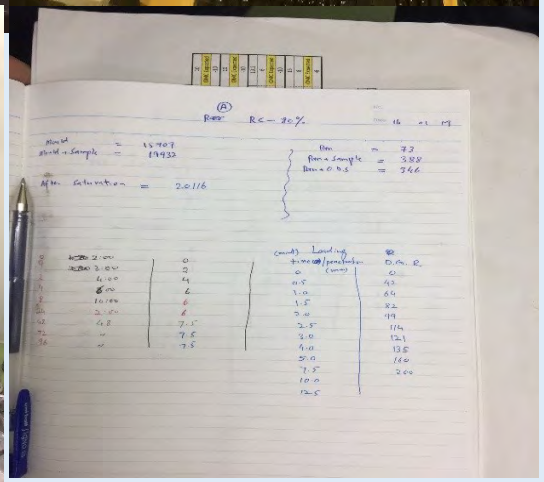
1. Detailed research schedule and experiments

Experiments.

- After every presentation (normally in the mornings), so in the afternoon I would immediately apply what professor Ken Kawamoto had said in practical by going to watch some equipment and also machine for the tests that related to my research.
- Although there are many experiments that I feel unfamiliar with, but I have been tried to ask Matsuno san (project researcher) for more detail and for more understanding.







1. Detailed research schedule and experiments

Crushing CDW
- on 26th of February, 2019 I and Matsuno san and Cuong san went to the Roller Compacted Concrete company named Matsuno company in Ishioka city.
- Here we crushed CDW from big size into smaller size which is suitable for sub-base layer according to TVCN-8859/2011 in Viet Nam

3. Activities and holidays

Master's thesis final presentation

- We had some experiments- watching and some presentations, besides, we also already took part in Join master student's final defense presentation on 18th and 19 of February.
- Time for the presentation is limited and they had just few minutes for many questions from professors.
- I know I have lots things have to do in Viet Nam before going back in Japan next time in September of this year..

2018(平成30)年度　修士論文発表会プログラム（1日目）
Master's Thesis Final Presentation FY2018 Program (1st day)

2019年 2月18日（月）（31番教室）
February 18, 2018 (Mon.) (No.31 Lecture Room)

2019.02.06 ver1

番号 No.	開始 Start	終了 End	学籍番号 Student ID	氏名 Name	タイトル Title	主査 Supervisor	副査 Co-supervisor	副査 Co-supervisor
M-1	9:00	9:18	17ME101	秋池　佑香	直列制震ダンパーを用いた機能分散免制震橋の実時間ハイブリット実験	党　紀	奥井　義昭	松本　泰尚
M-2	9:18	9:36	17ME102	新井　大輔	回転変位を考慮した曲線橋に対する2方向地震動応答解析	党　紀	奥井　義昭	松本　泰尚
M-3	9:36	9:54	17ME103	荒谷　優貴	UAVを用いた岩盤斜面の数値標高モデルの作成とその安定性評価に関する基礎研究	長田　昌彦	桑野　二郎	山辺　正
M-4	9:54	10:12	17ME104	伊坂　早織	地縁的集団の行動意識からみたコンパクトシティの実現可能性に関する研究	久保田　尚	小嶋　文	加藤　哲平
M-5	10:12	10:30	17ME105	石塚　紳	マイクロフォーカスX線CTによる顆粒状ベントナイト材料の微視的構造定量化と物質移動係数測定	川本　健	長田　昌彦	斎藤　健志
	10:30	10:40	休憩 Break					

3. Activities and holidays

Party with laboratory members

- At a restaurant near Kita Urawa station, we had a very good time, we were talking, drinking, eating and having lots of fun together.
- I met many amazing sampai.They shared life and study experiences for us, these things are very important for the next time here. How to balance between life and study, how to enjoy good time here.

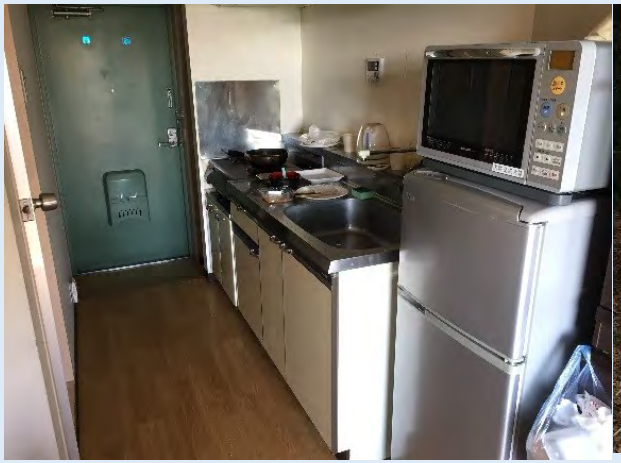
3. Activities and holidays

4th generation of Joint Master Program experience

- Cooking together:One of the best way to get along well with each other is cooking together, while we was cooking, we made a joke and we laughed
- Hang out together: In the daytime, we were here in nice time when the weather was so beautiful, we walked around, people watching, admired the beauty of the university

4. Feeling about Saitama University, Japanese and Environment in Saitama

- About accommodation: I was living in 3rd Building at room number 3502. To be honest, I felt so happy because the first time I have seen a room of a dormitory which is fully furnished, looks cozy.
- About Japanese and Environment in Saitama University: The first impression that I have to mention is probably about the environment here.
- Foods in Japan are so amazing, so good



5. Conclusion

Saitama University is a very good place to study, to research, to experience.

- Japanese people and many Japanese culture should be applied to myself to be a good student, a successful person.
- This time last only 10 days but I learned many good things from here. I definitely will come back here one day not far away.

RESEARCH PROPOSAL

STUDY OF IDENTIFIED CRITERIAS TO SELECT AREAS FOR PARK&RIDE APPLICATION IN HANOI

Present by: Ngo Trung **PHUONG**
Supervised by: Professor. **KUBOTA** Hisashi
National University of Civil Engineering
- Saitama University

Hanoi, 16/02/2019

Outline

1. Introduction
2. Literature review
3. Methodology
4. Work plan

CHAPTER 1: INTRODUCTION

- Problems
- Current Traffic Situation in Hanoi

Problems

- The rapid urbanization leading to fast growth of **private vehicles.**
- Motorcycle was used as primary vehicles in Hanoi (Vietnam also)
- Transport Demand exceeds Supply of Road Network, but **limitation** of budgets and road expansion

Congestion causes travelling time delay, economic lost, air pollution, culture degradation, disturbance social activities

Current Traffic Situation in Hanoi (1/2)

- The number of private vehicle in Hanoi is strongly increasing.

2008		**2017**
2.2 million vehicles in Hanoi (185,000 cars)	→	6 millions vehicles in Hanoi (540,000 cars)

Source: Hanoi Department of Transport, 2017

- In the first 8 months of 2018, the number of registered vehicles in Hanoi is more than **38,000 cars**; **170,000 motocycles**.
  Moreover, there are about **1.2 million** vehicles from suburbs and other provinces coming to Hanoi center everyday

Source: Hanoi Traffic Police, 2018

Current Traffic Situation in Hanoi (2/2)

- People live in Hanoi are facing with **congestion** in rush hours
- Vehicles can not move and cause a mess situations

Transport Demand exceeds the capacity of the road network

→ Congestion → **Low quality of life**

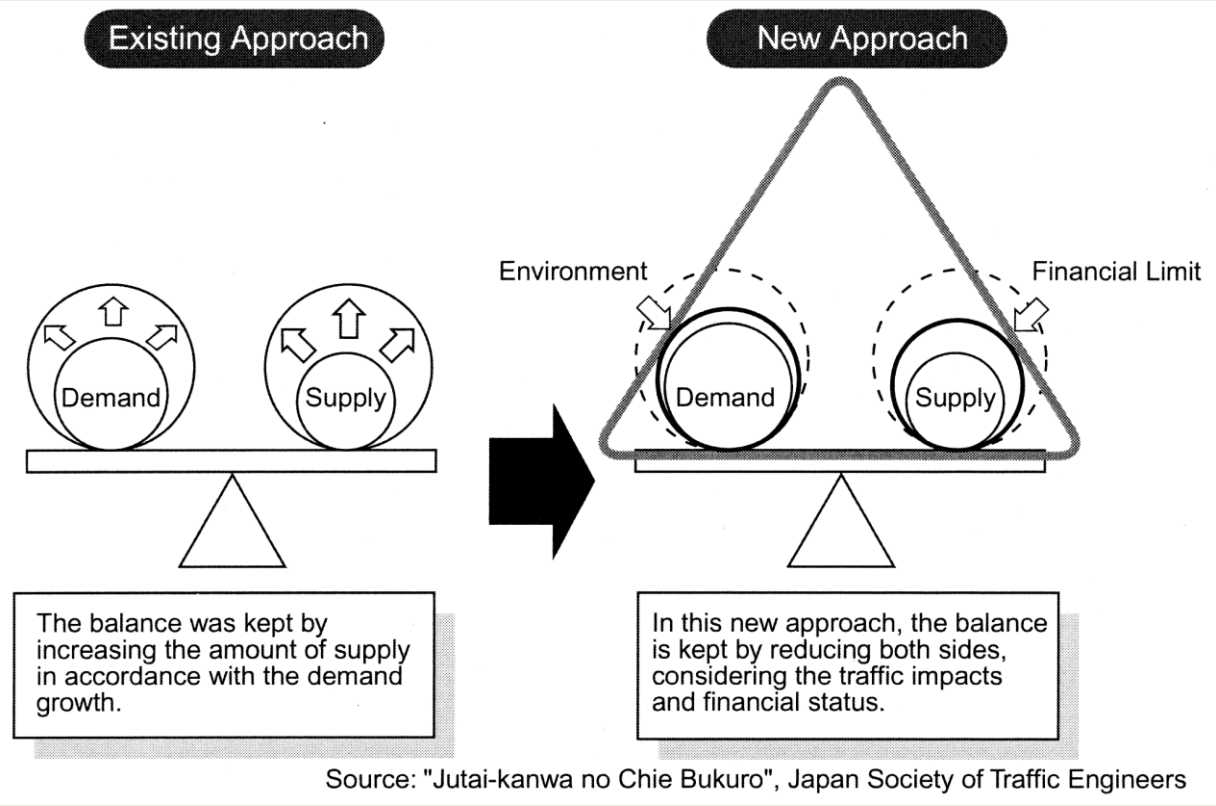
CHAPTER 2: LITERATURE REVIEW

- Introduction of Traffic Demand Management (TDM)
- The Objectives of TDM
- Four main groups of TDM measures
- Introduction of Park & Ride
- Cost and Benefit of Park & Ride

Introduction of Traffic Demand Management (TDM)

- Transport Demand **exceeds** Supply of Road Network
- **Limitation** of budgets as well spaces for road expansion

→ Transportation Demand Management (TDM)

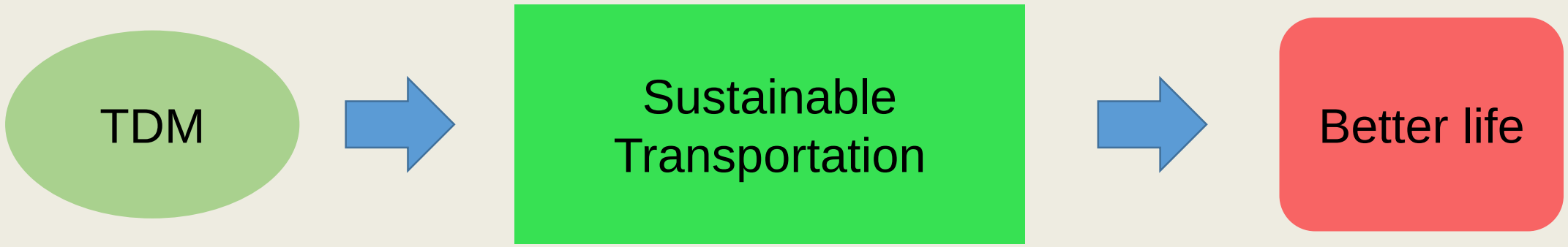


Source: "Jutai-kanwa no Chie Bukuro", Japan Society of Traffic Engineers

→ TDM focuses on the suppression of the traffic

The Objectives of TDM

- Reduce congestion and thus improve economic efficiency
- Improve the quality of life by improving the local environment
- Provide a stimulus for the local economy
- Reduce local and global impacts of traffic emissions



Four main groups of TDM measures

TDM Measures

- **Promotion of Modal Shift**
  (Use of Public Transport/ Park & Ride; pedestrian and cycling facilities)
- **Demand Suppression**
  (Road Pricing Restriction of Vehicle Use; else Working; Parking Management; Campaign)
- **Demand Dispersal**
  (Staggered Office-School Hours, Flexible Time; Congestion Charging; Traffic Information Service)
- **Efficient Use of Road Space**
  (High Occupancy Vehicles (HOV); car sharing and pooling; using traffic calming measures; restriction on para-transit veh.)

Introduction of Park & Ride

- Park & Ride is a scheme that allows you to drive to a selected site **near** an MRT station, bus interchange or bus stop, park your vehicle there and continue your journey by bus or MRT.

- This helps people **save** fuel and money, and also reduce traffic congestion and carbon emissions.

Park & Ride User's motivation

1. Save time (faster)
2. Save money (cheaper)
3. Comfort (Not tired, rainy day)
4. Safety
5. Difficulty to park at destination
6. No other option

Cost and Benefit of Park & Ride

Cost

- Construction Cost of parking facilities
- Operating Cost of parking facilities

Benefit

- Congestion Reduction
- Road and Parking savings
- Consumer Savings
- Travel Choice
- Road Safety
- Environmental Improvement
- Community Livability

CHAPTER 3: METHODOLOGY

- The Objectives of the most suitable selecting area
- Evaluation criterias
- Method of Survey
- Programming model to summary the data

The Objectives of the most suitable selecting area

For goverment

- Easy for management
- Attract more users
- Save the money

For citizens

- Better connection from residential to station and from station to office
- Get better and safer service

Evaluation criterias

Conditions around
(land size, cost, policy…)

Traffic flow
(the number of people who can use P&R model)

Transit service
(travel cost & travel time)

Suitable area to apply

Safety

Connection
(with the number of Bus at the station)

Others
(**Distance** from people's houses to parking site,…)

Evaluation criterias in details (1/2)

- **Conditions around**:
  - The area of the land can apply the model;
  - Cost for construct a parking site;
  - Administrative and planning documents of regional authorities what are considering applicability…
- **Traffic flow**
  - The number of people around the P&R site who can use this model
- **Transit service**
  - Travel cost and travel time for each journey

Evaluation criterias in details (2/2)

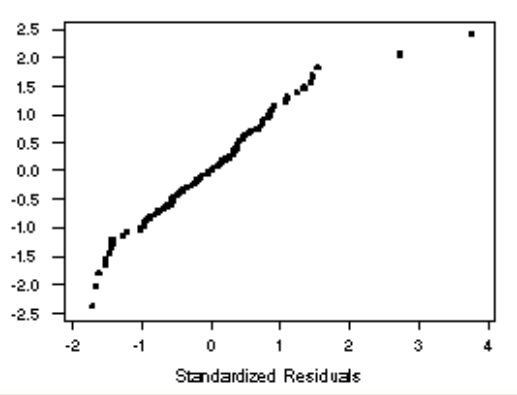
- **Safety**:
  - The P&R site should be make safety for users to attract more custumers
- **Connection**
  - The choosen area should have the highest number of Bus or Train connecting with this station
- **Others**
  - Distance from residential to parking site,…

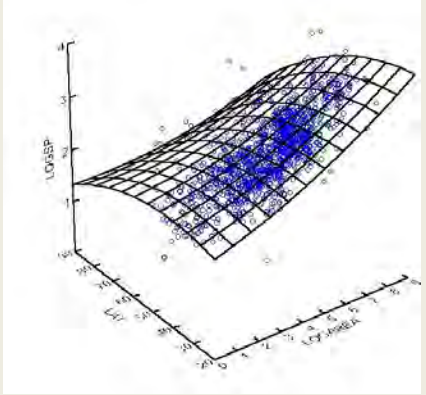
Method of Survey

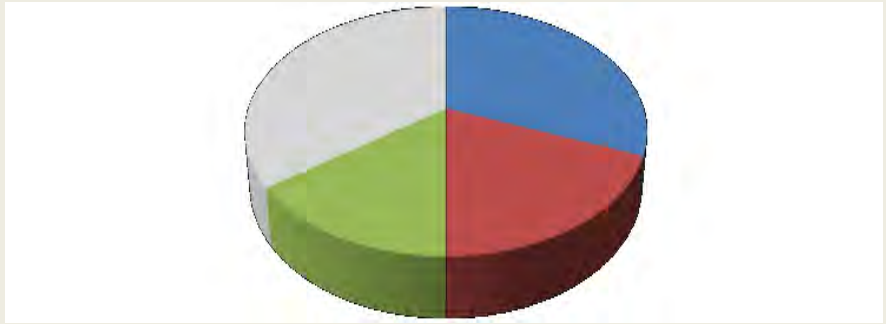
Selecting the Station

Questionnaire survey

Programming model to summary the data







Choose the model to summary data?

Choose the application to summary data?

Experiences from the other countries (Japan) (1/2)

There are many people who choose to use P&R model to control **Private vehicles** to Minami-yono station and parking this before using **Public transport**, such as Trains or Buses.

Parking of bike

Parking of motobike

Parking of car

Experiences from the other countries (Japan) (2/2)

In Satte station

Parking of bike

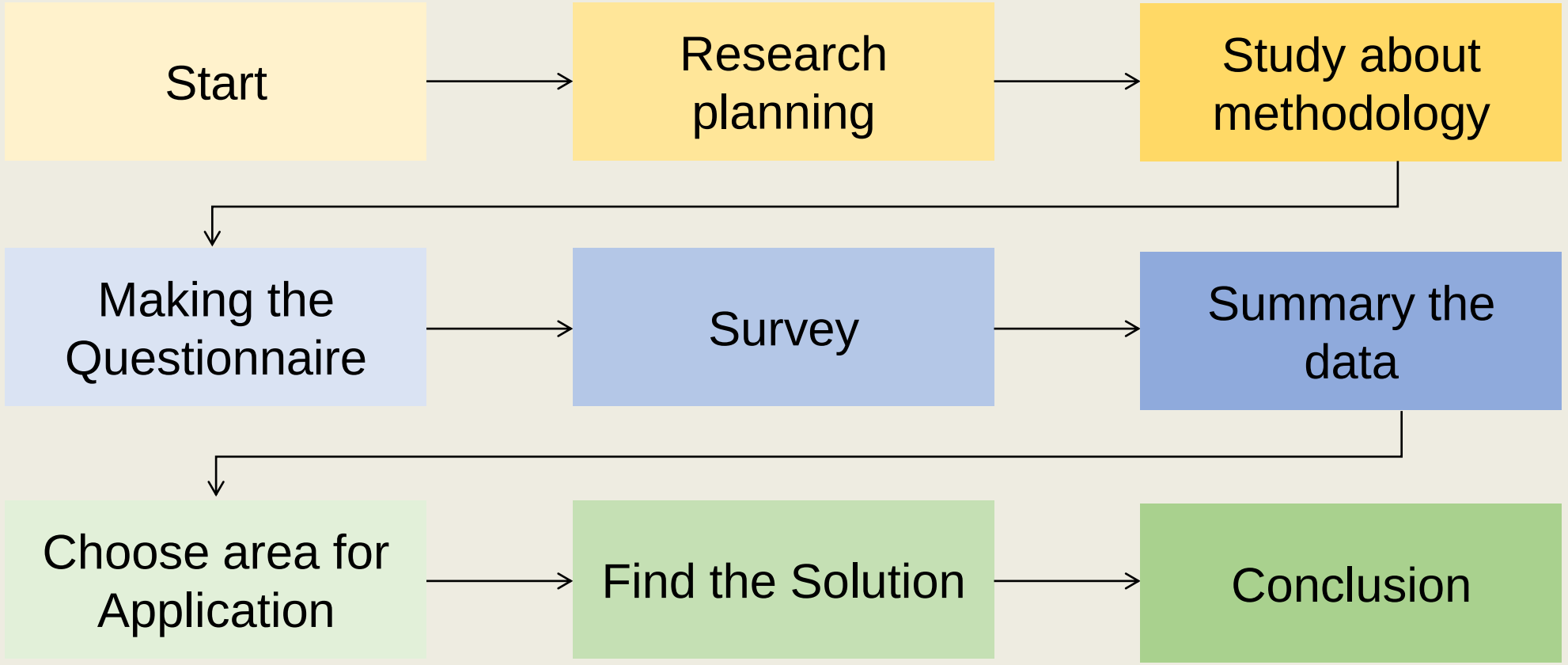
Parking of car

Parking of motobike

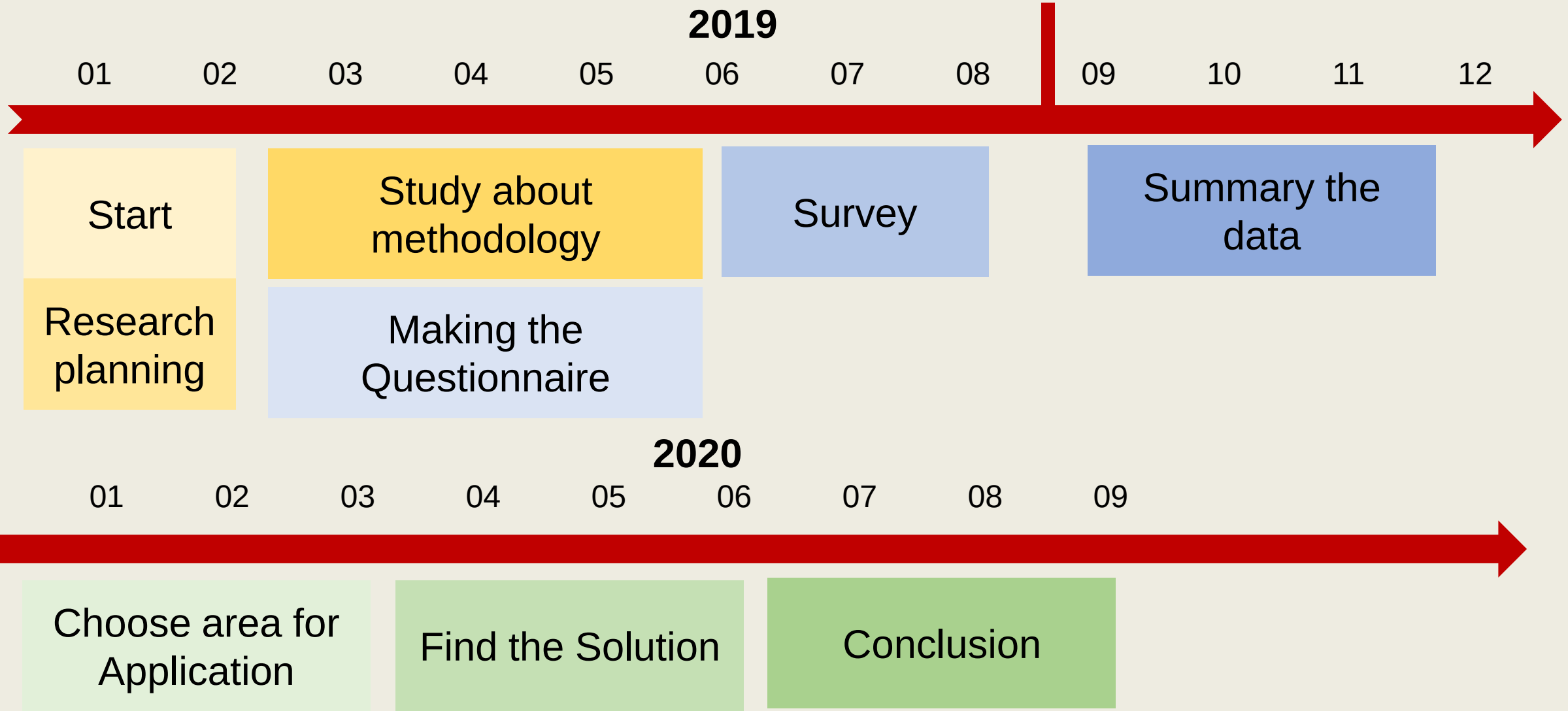
CHAPTER 4: WORK PLAN

- Work flow
- Work plan

Work Flow


Start
Research planning
Study about methodology
Making the Questionnaire
Survey
Summary the data
Choose area for Application
Find the Solution
Conclusion

Work plan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Choose area for Application
Find the Solution
Conclusion

References

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THANK YOU FOR YOUR ATTENTION!

Ngo Trung **Phuong**

National University of Civil Engineering - Saitama University

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Hanoi, 16/02/2019

RESEARCH PROPOSAL

Assessing the characteristics of structural joint in RC single-span Bridge.

Presented by: Phan Ngoc Hiep

Supervised by
Assoc.Professor. Shingo Asamoto

ĐẠI HỌC XÂY DỰNG

Saitama University
埼玉大学

CONTENT

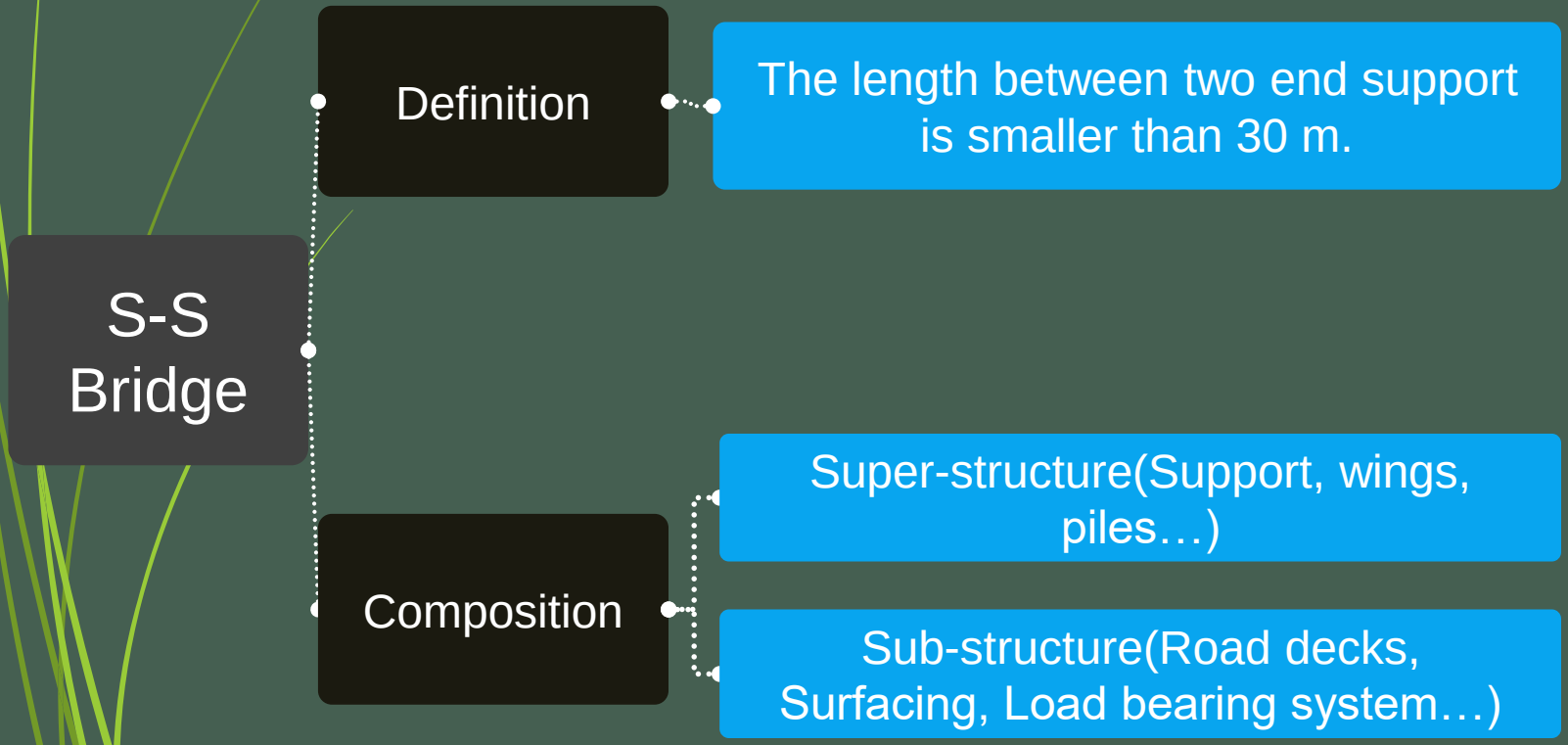
- INTRODUCTION
- OBJECTIVES
- METHODOLOGY
- LITERATURE RIVIEW

I. Introduction

- Now in the world, there are a number of sigle-span reinforced-concrete bridges, which has lasted a hundered years up to now .

I. Introduction

1.1. Definition & Composition of singe-span bridge.



I. Introduction

1.2. Classification of Reinforced Concrete Bridge.

Concrete bridges
- Slab-frame cast in-situ
- Beam-frame cast in-situ
- Integral abutments (jointless bridges)
- Simply supported slab cast in-situ with end walls
- Simply supported beam cast in-situ
- Through concrete beam cast in-situ – flat type
- Through concrete beam cast in-situ – ribbed type
- Prefabricated prestressed hollow core elements
- Prefabricated prestressed beam elements

II :Objectives

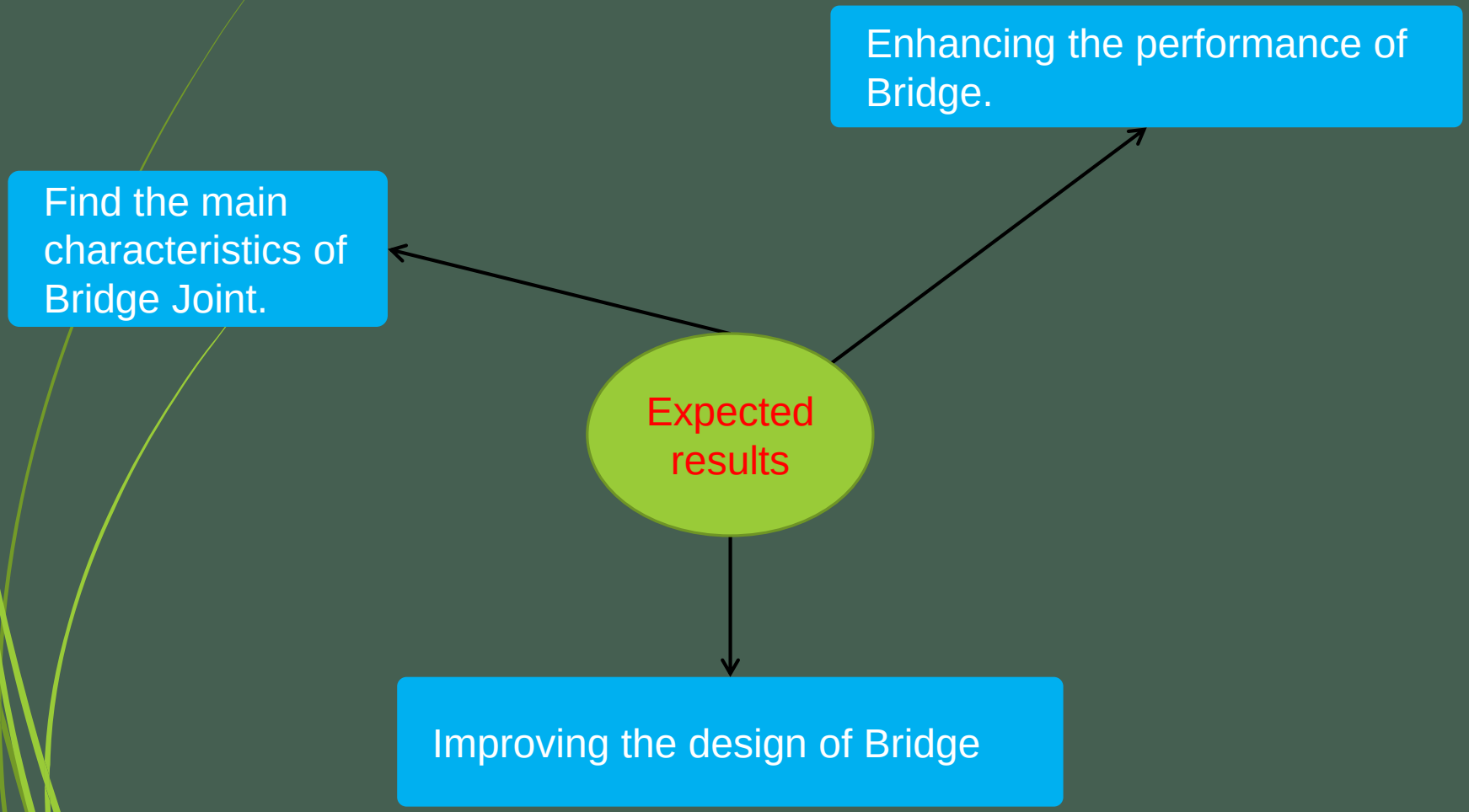
Single-span Bridge

- Investigation of Bridge in Vietnam
  - Find the characteristics of the joints, support
- Using Code Aster for analyzing the Bridge
  - Statistical Analyzing
  - Accessing the characteristics of Bridge Joint.

III :Methodology

- 1st year in Vietnam (09/2018 – 09/2019)
  - Finishing the required subjects in Vietnam
  - Doing surveys of Bridge Joint(After finishing all the subjects, by the beginning of May)
    - Statistical analysis
  - Learning Code Aster software
- 2nd year in Japan (09/2019 – 09/2020)
  - Finishing the required subjects in the 1st semester
  - Doing analysis of Bridge by Code Aster
    - Statistical analysis
  - Finishing Master Thesis

IV : Expected results



Thank for listening