### STUDY TOUR TO DONGSEO UNIVERSITY, BUSAN, SOUTH KOREA

#### https://photos.app.goo.gl/4BrGCnr1K5JGRtVJ8

### **Objectives**

- To allow the students to experience a new culture and life experience in an entirely Korean environment
- To encourage the academic collaboration and cultural exchange between South Korea and Malavsia.
- To be a forum for substantive discussion on the recent technologies and knowledge exchange among students.
- To enable the participants to share enthusiasm for **Computer Vision**, **Image Processing**, **Visualization**, **Graphics and Interactive Arts**.

#### **Tentative Date**

Dates: 2<sup>nd</sup> January 2017 (Monday) ~ 15<sup>th</sup> January 2017 (Sunday) Duration: 14 days <u>detail Lecture Schedule by leebyunggook</u>

IAI Members Master Students: Xiong Kailun, Elsherif Ahmedt, Lee Ming Xiang, Teng Meng Wei

#### **Course Details**



Processing, PBox2D, Kinect, Senz3D, Leap Motion, Arduino, Sensors, ...

#### Text

- <u>Learning Processing: A Beginner's Guide to Programming Images, Animation, and Interaction</u>, Daniel Shiffman. August 2008, Morgan Kaufmann.
- <u>The Nature of Code: Simulating Natural Systems with Processing</u>, Daniel Shiffman. Dec 2012, The Nature of Code

#### Reference

- <u>Processing: A Programming Handbook for Visual Designers and Artists</u>, Casey Reas and Ben Fry (Foreword by John Maeda). August 2007, MIT Press.
- <u>Processing: Creative Coding and Computational Art (Foundation)</u>, Ira Greenberg (Foreword by Keith Peters). May 2007, Friends of Ed.

## Flight Details (UTAR)

| Flight | Flight details  |             |   |  |  |  |  |
|--------|---|-------------|---|--|--|--|--|
| Depart | KUL - PUS   |             |   |  |  |  |  |
| D7 518 | Kuala Lumpur (KUL)<br>Kuala Lumpur International<br>Airport 2 (klia2) (KUL)<br>02 Jan 2017, 0125 AM (1:25 AM) | <b>&gt;</b> | Busan (PUS)<br>Gimhae International Airport<br>(PUS)<br>02 Jan 2017, 0830 AM (8:30 AM)                        |  |  |  |  |
| Return | PUS - KUL   |             |   |  |  |  |  |
| D7 519 | Busan (PUS) Gimhae International Airport (PUS) 15 Jan 2017, 1035 AM (10:35 AM)                                | <b>&gt;</b> | Kuala Lumpur (KUL)<br>Kuala Lumpur International<br>Airport 2 (klia2) (KUL)<br>15 Jan 2017, 1610 PM (4:10 PM) |  |  |  |  |

## **Participants (Lecturers)**

Saw Seow Hui (UTAR FICT/ DCS)

Lee Yun Li (SUNWAY UNIVERSITY COLLEGE)

| Flight             |     | Depart                                     |          |     | Arrive                                     |
|--------------------|-----|--|----------|-----|--|
| D7 518<br>Low Fare | KUL | Kuala Lumpur<br>Tue 03 Jan 2017<br>11:05PM | <b>+</b> | PUS | <b>Busan</b><br>Wed 04 Jan 2017<br>06:10AM |
| D7 519<br>Low Fare | PUS | <b>Busan</b><br>Thu 19 Jan 2017<br>10:35AM | <b>+</b> | KUL | Kuala Lumpur<br>Thu 19 Jan 2017<br>04:10PM |

## Participants (Students)

### <u>Faculty</u>

FICT: Faculty of Information and Communication Technology LKCFES: Lee Kong Chian Faculty of Engineering and Science

## <u>Department</u>

IA: Information SystemsCS: Computer ScienceCE: Chemical Engineering

3E: Electrical and Electronic Engineering

| No | Name          | Gender | Department | Year | Email address         |
|----|---------------|--------|------------|------|-----------------------|
| 1  | BEH SEOW IMM  | F      | FICT (IA)  | Y2T2 | seowimm96@hotmail.com |
| 2  | CHONG NUI MEI | F      | FICT (IA)  | Y2T2 | nuimei0415@gmail.com  |
| 3  | FONG KAR YAN  | F      | FICT (IA)  | Y2T3 | karyan7898@gmail.com  |

| 4  | FOO CHENG YAW        | М | FICT (IA)    | Y2T3 | chicky095@gmail.com      |
|----|----------------------|---|--------------|------|--------------------------|
| 5  | GOH THENG KHAI       | М | FICT (IA)    | Y2T3 | thengkhai94@1utar.my     |
| 6  | HEE POH YEE          | F | FICT (IA)    | Y2T2 | pohyee_hee@hotmail.com   |
| 7  | HOW WEI MAN          | F | FICT (IA)    | Y2T2 | mandyh1995@1utar.my      |
| 8  | KOAY YUAN HONG       | М | FICT (IA)    | Y2T3 | rjhong_92@homtail.com    |
| 9  | LIM HAN WEI          | М | FICT (IA)    | Y2T2 | jeffrey6171@gmail.com    |
| 10 | NG WEI LIN           | F | FICT (IA)    | Y2T3 | ngwl95@gmail.com         |
| 11 | POONG QIAO YING      | F | FICT (IA)    | Y2T2 | qypoong@gmail.com        |
| 12 | TAN JUN JIE          | М | FICT (IA)    | Y2T3 | junjie1996@hotmail.co.uk |
| 13 | WONG YING SHAN       | F | FICT (IA)    | Y2T2 | yingshan16@gmail.com     |
| 14 | YIP KIN SIAN         | М | FICT (IA)    | Y2T3 | yipyip95@gmail.com       |
| 15 | HEW TENG WEI         | F | FICT (CS)    | Y2T1 | hewtengwei@hotmail.com   |
| 16 | LEE WEI FAN          | м | FICT (CS)    | Y2T1 | weifan2647@gmail.com     |
| 17 | CHAN FOO SHENG       | М | LKC FES (CL) | Y4S1 | chanfs@1utar.my          |
| 18 | DANNY CHIN WEI KIT   | М | LKC FES (CL) | Y4S1 | dannycwk@1utar.my        |
| 19 | JUDSON LIM MENG HOOI | М | LKC FES (CL) | Y4S2 | judsonlim93@gmail.com    |
| 20 | LEE LEONG WEI        | М | LKC FES (3E) | Y1S1 | llyedlee@gmail.com       |
|    |                      |   |              |      |                          |

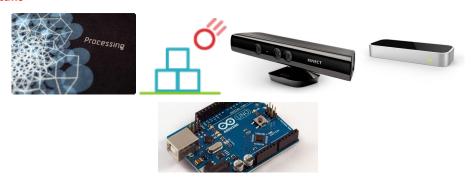
# Assignments and Marks Allocation (MPU34062)

| Criteria   | Percentage | Evaluated by       |
|--|------------|--------------------|
| Written Assignment: Reflection Report  | 20 %       | DSSC Staff         |
| Group Project II   | 10 %       |                    |
|  |            |                    |
| Presentation: Oral Presentation  Self- introduction (10 %) Project idea (10 %)                 | 20 %       |                    |
| Group Project I  ■ Prototype system/ Implementation system (30 %)  ■ Final presentation (20 %) | 50 %       | FICT Staff (shsaw) |

**Team Projects** (proposed by the UTAR students)

| Project Title                            | UTAR participants  | DSU participants              | Tools/ Software Involved                  |  |
|--|--|-------------------------------|---|--|
| For example: Wall Panic- The City Escape | Chong Ka Ying  | Uk je Yang, Hyun<br>sung Jung | Occulus, Leap<br>Motion and<br>Processing |  |
| Feel Me and<br>Catch Me                  | Ng Wei Lin, Fong<br>Kar Yan, Wong<br>Ying Shan, Danny<br>Chin Wei Kit,<br>Chan Foo Sheng,<br>Judson Lim Meng<br>Hooi |                               | Occulus, Leap<br>Motion and<br>Adruino    |  |
| Virtual Piano                            | Goh Theng Khai,<br>Lim Han Wei, Foo<br>Cheng Yaw, Yip<br>Kin Sian, Tan Jun<br>Jie, Koay Yuan<br>Hong                 |                               | Oculus, Leap<br>Motion                    |  |
| Walking Dead                             | Chong Nui Mei,<br>Poong Qiao Ying,<br>How Wei Man,<br>Lee Leong Wei  |                               | Occulus, Leap<br>Motion                   |  |
| Starsight                                | Hee Poh Yee, Beh<br>Seow Imm, Hew<br>Teng Wei, Lee<br>Wei Fan  |                               | Oculus, Leap<br>Motion                    |  |

# **Course Details**



Processing, PBox2D, Kinect, Senz3D, Leap Motion, Arduino, Sensors, ...

### Text

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| 1 | Introduction to IAI (institute of Ambient Intelligence) lab Professor Lee Byung Gook | 3 <sup>rd</sup> January<br>2017<br>(Tuesday)<br>(2 hour) | Develop an insight in the main role and contributions of the research lab to the community and industry.  | <ul> <li>Overview of the air-touch system for integral imaging 3D display.</li> <li>Introduction to image sensor and iArts.</li> </ul>  |   |
|---|--|--|---|---|---|
| 2 | Joint workshop<br>orientation<br>Saw Seow Hui  | 3 <sup>rd</sup> January<br>2017<br>(Tuesday)<br>(1 hour) | Improve in the communication skill and enhance the adaptability among the students in an entirely Korean environment.   | <ul> <li>Ice breaking session<br/>among the students<br/>from Malaysia and<br/>Korea.</li> </ul>  | 100%<br>Assessme  |
| 3 | Processing 1~3 Xiong Kailun Teng Meng Wei  | (2 hours) x 3  | Develop an insight in the latest open source software that is able to create visual and interactive media for leading design, art, and architecture students into programming.                            | Introduction to the different features of Processing that lead to designing an interactive drawing program.   | nt by UTAR Staff, FICT and DSSC Assignme nt 30% Presentat ion 20% Project |
| 3 | Processing with Leap Motion Xiong Kailun Teng Meng Wei                               | (2 hours)  | Develop an insight in the latest sensor device that supports hand and finger motions as input, analogues to a mouse, but requires no hand contact or touching.  Able to combine both open source software | <ul> <li>Introduction to the main features for Leap Motion.</li> <li>Demonstrate the oinstallation, integration and development steps using both processing and Leap Motion.</li> </ul> | 50%   |

|   |                                       |           | and sensor device for making interactive projects.   |  |
|---|---------------------------------------|-----------|--|--|
| 4 | Processing with Kinect Lee Ming Xiang | (2 hours) | Develop an insight in the latest motion sensing input device, making completely hands-free control of electronic devices by using an infrared projector and camera to track the movement of objects and individuals in three dimensions.  Able to combine both open source software and sensor device for making interactive projects. | <ul> <li>Introduction to the main features for Kinect.</li> <li>Demonstrate the installation, integration and development steps using both processing and Kinect.</li> </ul>                                   |
| 5 | Processing with box2d Lee Ming Xiang  | (2 hours) | Develop an insight in the latest free open source 2-dimensional physics simulator engine to create 2-dimensional games.  Able to combine both open source software for making interactive projects and games.  | <ul> <li>Introduction to the main features for box2d.</li> <li>Demonstrate the installation, integration and development steps using both processing and box2d.</li> </ul>                                     |
| 6 | Arduino Elsherif Ahmedt               | (2 hours) | Develop an insight in the latest open source electronics platform based on easy-to-use hardware and software for making interactive projects.  | Overview of the features for Arduino board, which senses the environment by receiving inputs from many sensors, and affects its surroundings by controlling lights, motors, and other actuators. and software. |

|   |  |            |  | Overview of Arduino<br>software by writing<br>code to tell Arduino<br>what to do.  |
|---|--|------------|--|--|
| 7 | Processing with<br>Arduino<br>Elsherif Ahmedt                                | (2 hours)  | Able to combine both open source software and electronics platform based on easy-to-use hardware for making interactive projects.  | <ul> <li>Introduction to the main features for Arduino.</li> <li>Demonstrate the installation, integration and development steps using both processing and Arduino.</li> </ul> |
| 8 | Project activities Xiong Kailun Elsherif Ahmedt Lee Ming Xiang Teng Meng Wei | (30 hours) | Establish a sense of teamwork among participants who must contribute and work well with their peers.  Develop an insight in the latest technologies for hardware and software that are able to create solutions to a wide range of problems.  Develop an insight in the latest technologies for hardware and software that are able to create solutions to a wide range of problems. | <ul> <li>Team formation</li> <li>Project discussion and development</li> <li>Class activities</li> <li>Presentation</li> </ul>   |

# Itinerary

| DATE                                     | AGENDA  |
|--|---|
| 2 <sup>nd</sup> January 2017<br>(MONDAY) | <ul> <li>Depart from KLIA, Malaysia.</li> <li>Arrival to Gimhae, Busan.</li> <li>Dormitory distribution (13 nights accommodation).</li> <li>Dongseo University campus tour.</li> <li>Groceries shopping.</li> </ul> |
| 3 <sup>rd</sup> January 2017             | · Registration of students.   |

| (TUESDAY)                                    | <ul> <li>Introduction to IAI (Institute of Ambient Intelligence) lab, orientation.</li> <li>Project Topics Introduction.</li> <li>Team division.</li> <li>Initial team meeting, initial proposal preparation (in ppt).</li> <li>Welcome dinner.</li> </ul> |
|--|--|
| 4 <sup>th</sup> January 2017<br>(WEDNESDAY)  | <ul> <li>Lectures and talks.</li> <li>Initial proposal presentation.</li> <li>Team project development, programming.</li> </ul>  |
| 5 <sup>th</sup> January 2017<br>(THURSDAY)   | <ul> <li>Lectures and talks.</li> <li>Team project development, programming.</li> </ul>  |
| 6 <sup>th</sup> January 2017<br>(FRIDAY)     | · Cultural visits/ Cultural activities   |
| 7 <sup>th</sup> January 2017<br>(SATURDAY)   | · Cultural visits/ Cultural activities   |
| 8 <sup>th</sup> January 2017<br>(SUNDAY)     | · Cultural visits/ Cultural activities   |
| 9 <sup>th</sup> January 2017<br>(MONDAY)     | Lectures and talks.     Team project development, programming.   |
| 10 <sup>th</sup> January 2017<br>(TUESDAY)   | <ul> <li>Lectures and talks.</li> <li>Team project development, programming.</li> </ul>  |
| 11 <sup>th</sup> January 2017<br>(WEDNESDAY) | Lectures and talks.     Team project development, programming.   |
| 12 <sup>th</sup> January 2017<br>(THURSDAY)  | <ul> <li>Lectures and talks.</li> <li>Team project development, programming.</li> <li>Progress report presentation.</li> </ul>   |
| 13 <sup>th</sup> January 2017<br>(FRIDAY)    | <ul> <li>Final presentation.</li> <li>Feedback and comments.</li> <li>Farewell party</li> </ul>  |
| 14 <sup>th</sup> January 2017<br>(SATURDAY)  | <ul><li>Cultural visits/ Cultural activities</li><li>Shopping.</li></ul>   |
| 15 <sup>th</sup> January 2017<br>(SUNDAY)    | Depart from Gimhae, Busan, South Korea. Arrival to KLIA.   |

# **Cultural Activities:**

- Hiking, Trip to Busan city, sightseeing
- Cook some traditional food such as Kimchi, Korean Karaoke, Jjimjilbang