

## **Smart Campus needs your Great Intelligence: the first UM Intellectual Hackathon**

### **I. Background and Purpose**

With the rapid development of information technology, University of Macau is faced with the massive expansion of information systems and enormous variety of data. Creating the Smart Campus needs your great intelligence and your participation truly makes a difference. By making use of the UM's Open Data portal, this Hackathon aims to seek innovative solutions to challenges associated with campus living and learning.

Under the Smart Campus framework leveraging information technologies as an enabler to support education reform, nurturing talent and fostering innovations, every UM member can contribute to its implementation. Therefore, UM has created the Open Data API portal (<https://data.umac.mo/>) to harness the creativity of students and staff to develop new groundbreaking applications with their ideas. This platform shares a great variety of data with UM members, such as energy consumption, news and events, courses and schedule, venue booking etc.

A Smart Campus requires your wisdom and engagement to unleash a positive impact. UM has a wide variety of data captured by systems and devices. The data is readily available, but how do we transform it into wisdom? This Hackathon event hopes to attract and nurture creative talent by embracing big data and technologies.

### **II. Format, Date and Location of the Hackathon**

**Format:** Within 24 hours, the competing teams need to use the provided open data to develop or build an application prototype. The specific problem statement would be announced on the day of the competition.

**Date:** From 26th October, 2018 to 27th October, 2018

**Venue:** 1st Floor of N1, Centre for Innovation, University of Macau

### III. Schedule

| Date /Time                              | Items   | Remarks  |
|---|---|--|
| 12th September 2018                     | Registration of Hackathon starts  |  |
| 19th September 2018,<br>2:00pm – 3:00pm | Competition Briefing<br><br>Team Forming: a platform to assist interested students to form interdisciplinary teams to participate in the competition                            | Venue: N1-1004, Lecture Room, Centre for Innovation<br><br><a href="#">Briefing registration</a>                     |
| 6th October 2018 &<br>13th October 2018 | Mobile APP Training Camp (optional)   | Details and registration information at the <a href="#">designated webpage</a>                                       |
| 10th October 2018                       | Deadline of registration  |  |
| 15th October 2018,<br>5:00pm – 7:00pm   | Technical Briefing <ul style="list-style-type: none"> <li>introducing how to operate the platform and data definition</li> <li>introducing how to use Git and Github</li> </ul> | Venue: N1-1004, Lecture Room, Centre for Innovation<br><br>Please bring your notebooks and other necessary materials |
| 26th October 2018,<br>5:00pm            | Hackathon starts and announcement of problem statements   | Venue: N1-1005, Multi-function Room, Centre for Innovation   |
| 27th October 2018,<br>5:00pm            | Time allowed finishes.<br><br>Each team would be given 5 minutes for presentation and 5 minutes for Q&A. The Award Ceremony would be held after the presentation                | Venue: 1st Floor of N1, Centre for Innovation  |

### IV. Registration

#### 1. Target

- 1.1. While the target is students from various departments of the University of Macau, cross-disciplinary teams are encouraged to develop the creativity of students. **Registration form can be downloaded at the website of the [Hackathon](#).** Upon receiving a confirmation email, a deposit of MOP500 each team would be charged and refunded in full after finishing the competition and fulfilling the attendance requirements.
- 1.2. In order to promote the UM Smart Campus initiative, the organizer may invite teams from outside to participate.

#### 2. Team

- 2.1. Size: 2-5 people per team. Each person could only join one team.
- 2.2. A team is recommended to include the following roles:
  - 2.2.1. Product manager: familiar with relevant business and knowledge of the subject
  - 2.2.2. Designer: UI/UX and graphic design
  - 2.2.3. Programmer: specialization in mobile APP programming.
3. At least two team members shall stay at the competition venue within the 24 hours of the competition. Otherwise the team would be disqualified. The teams need to check in at the below time slots: 11:00pm of 26th October, 8:00am and 2:00pm of 27th October.
4. The maximum number of teams is 30 under normal circumstances.

## V. Tutor

The organizer may arrange tutors regularly for providing technical suggestions to the participants.

## VI. Fees

Participation is free of charge. Except the invited teams, a deposit of MOP 500 per team would be charged and refunded in full after finishing the competition and fulfilling the attendance requirements.

## VII. Technical Requirements

1. Participants are required to bring their own laptops, develop an executable system prototype with the use of data provided by the [UM Open Data API Platform](#).
2. Participating teams can use any programming languages and development platforms according to their needs. The product to be submitted can be any kind of application, software/tool, website, etc.
3. Before the end of the coding time limit, each team should:
  - 3.1. Submit all source code and data obtained from other sources (if any) through Github for panel's review.
  - 3.2. Submit a README file citing which open source libraries were used (if any).
4. Each team has 5 minutes to present their product after the end of the coding time limit. The content of presentation should include explanation of the solution and demonstration of the executable system prototype. After the presentation, each team has 5 minutes for Q&A to answer questions raised by judges.
5. Each team must use data provided by the UM Open Data API Platform. Team which violates this rule will not be eligible to win a prize.
6. Each team must develop the product during the stated time frame and submission of a fully functional product completed before the event is not acceptable. Team which violates this rule will not be eligible to win a prize.

- The work submitted must be original and must not have been submitted elsewhere. Plagiarism is not acceptable. Teams with plagiarized work or not fulfilling the requirement stated in 3.2 will be disqualified.

### VIII. Award

The competition will give awards of first prize, outstanding prize and innovative prize according to the number of participating teams. In general, the proportion of winning teams to participating teams will not be greater than one to five.

| <b>First Prize</b>                                | <b>Outstanding Prize</b>                         | <b>Innovative Prize</b>                          |
|---|--|--|
| <b>Cash MOP10,000,<br/>certificate and trophy</b> | <b>Cash MOP5,000,<br/>certificate and trophy</b> | <b>Cash MOP3,000,<br/>certificate and trophy</b> |

### IX. Equipment

- The organizer will provide light meals, work space, power outlets and WIFI during the event.
- Participants are required to bring their own equipment such as laptop computers, tablets, mobile phones, chargers, power cords.
- Seating area and shower will be available at the venue. Participants can bring sleeping bags, blankets, spare clothes and jackets, toothpaste and toothbrushes, shower products and other items.

### X. Judging Criteria

- Completeness: Completeness of the solution and product
- Creativity: Novelty of the product. Differences with similar products
- Practicality: Whether the product is practical and usable in real life
- Presentation: Clarity and Organization
- Impact: Ability to solve problems and have a positive impact
- Technical complexity: Complexity of the product based on the presentation, source code and data (if any)
- Design: Product appearance, user interface and experience

### XI. Additional Notes

- The organizer would not be responsible for any infringement of intellectual property rights of the participating teams.
- All the materials submitted to the organizer would not be returned.
- During the competition, all submitted materials would only be used in the “Smart Campus needs your Great Intelligence: The first UM Intellectual Hackathon”.

4. The organizer will arrange photography and video recording on the day of the event and related events. The participants agree to display or publicize their portraits and sound for the recording and promotion of the competition.
5. After the event, the organizer has the right to display or exhibit the works, source code or data submitted by the participating teams.
6. In case of any dispute, the decision of the organizer shall be final.

## XII. Sponsor

Bank of China (Macau Branch)

## XIII. Co-organizers

Centre for Innovation, Center for Teaching and Learning Enhancement, Information and Communication Technology Office

## XIV. Enquiry

1. Registration and Competition: Centre for Innovation, Tel: 8822 4619, Email: [ICI.innovation@umac.mo](mailto:ICI.innovation@umac.mo);
2. UM Open Data API Platform:  
Center for Teaching and Learning Enhancement, Tel: 8822 8649 / 8822 8081, Email: [ctle@umac.mo](mailto:ctle@umac.mo); or  
Information and Communications Technology Office, Tel: 8822 8500, Email: [icto.ims@umac.mo](mailto:icto.ims@umac.mo)