Information and Guidelines for Applicants
Summer Course: Data Mining on Air Pollution Modelling as Impacts of Forest Fires (MAPFire) 2019
http://summercourse.apps.cs.ipb.ac.id/

This information and guidelines have been prepared for applicants of Summer Course: Data Mining on Air Pollution Modelling as Impacts of Forest Fires (MAPFire)'. The summer course is jointly organized by Computer Science Department, Faculty of Mathematics and Natural Sciences (http://fmipa.ipb.ac.id/) and Faculty of Forestry (http://fahutan.ipb.ac.id/), IPB University, Indonesia.

Date: 26th September – 4th October 2019

Venue: Computer Science Department, Faculty of Mathematics and Natural Science, IPB University, IPB Campus Dramaga, Indonesia

IMPORTANT: The completed Application must be submitted to the contact by 10th August 2019.

Course Description

Forest and land fires in Indonesia produce haze that spreads to neighboring countries causing "transboundary haze pollution". Haze causes decreased visibility that disrupts people as well as causing public health disturbances. Studies on air pollution modelling and haze dispersion have been conducted in order to identify area extent affected by haze. Data mining as a growing research area has been successfully applied in extracting interesting and important patterns from large datasets. This course gives you the recent development in pollution modeling as well as recent developments on forest and land fire prevention and mitigation efforts in Indonesia. This course provides an introduction to data mining, basic techniques in data mining, haze and pollutant datasets, and application of data mining techniques in analyzing pollutant datasets. This course is suitable for students and your lecturers who study or conduct research on computer science, forest and land fires or related fields of study. On completing this course, students will understand and explain technology developments and data mining methods in pollution modeling as the impact of forest and land fires as well as recent developments on forest and land fire prevention and mitigation efforts in Indonesia.

Learning Outcome

Upon completion of this course, participants will:

1. understand the characteristics of forest and land fires and the associated haze;

2. understand and explain technology developments and methods in pollution modeling as the impact of forest and land fires as well as recent developments on forest and land fire prevention and mitigation efforts in Indonesia.

3. understand and explain basic techniques in data mining that can be applied for smoke haze analysis and pollutants from forest and land fires.

4. be able to use tools to simulate haze dispersion especially from forest and land fire

5. be able to apply basic techniques in data mining on pollutant datasets using R software

6. be able to prepare and present a brief review report on the application of basic techniques in data mining to solve real problems related to forest and land fires.

Method

Teaching method:

1. Course Introduction: 10 hours
2. General Lecture: 12 hours
3. Conceptual Lecture: 12 hours
4. Hands-on Practical: 12 hours
5. Field excursion: 8 hours
6. Independent task: 8 hours
7. Project presentation: 6 hours

Total hours: 68 (3 credit unit).

Target Groups

- The Direct Target Group consists of the lecturers and post-graduate students (future lecturers) involved in the field of forest and land fire as well as data mining and its application at the selected universities.

- The Indirect Target Group consists of the students studying at the participating institutions

The reason for selecting lecturers and post-graduate students (future lecturers) as direct target groups of the project is to ensure a higher multiplier effect. It is expected that they will continue to teach modelling in forest fires and related fields at their institutions to benefit the indirect target groups i.e. the current and the future students.

The Selection of the participants will be conducted by inviting applications/recommendations from the universities.

Number of Participants: Expected number of participants is 25.

Pre-requisites for Participation

The participants should have:

- good proficiency in English language,
- good 'hands-on' experience of computer operations,
- basic knowledge of data mining, spatial data processing using GIS tools.

Criteria of Selection

Following criteria will be taken into consideration while selecting the candidates:

- level reached in the above mentioned pre-requisites,
- gender equality,
- geographical distribution.

Required Documents

The applicants must submit a completed set of following documents:

- Online Application Form at http://bit.ly/MAPFire2019.
- Curriculum Vitae (CV) Form, link for CV template: http://summercourse.apps.cs.ipb.ac.id/requirements/
- Colour Scan of the passport / identity card showing photograph and validity date.
- Recommendation Letter from the home organization.
- Colour scan of travel and health insurance

The documents should be submitted to http://bit.ly/MAPFire2019

Provisions for the selected candidates

- The course fee is 400 USD for International participants and IDR 4,000,000 for Indonesia Domestic (non-refundable). The fee include participation in all sessions of The 2nd International Conference on Environment and Forest Conservation (ICEFC2019) http://icefc2019.ipb.ac.id/, accommodation (sharing room), meals, and local transport during ICEFC2019 and MAPFire2019, course kits, and trip to Bogor Botanical Garden.
- Method of payment by bank transfer
  - Name of Bank: Bank Negara Indonesia
  - Account number: 3898498
  - Name of Account Holder: Rektor IPB cq KS FMIPA
  - SWIFT Code: BNINIDJABGR

  As soon as payment is made, please mail the copy of the receipt to annisa@apps.ipb.ac.id with the email subject: Payment_MAPFire2019.
- Participants are requested to have their own travel and health insurance which should cover the trip from their home country to Indonesia and vice versa, as well as during MAPFire 2019.
- Participating institutions are requested to support travel costs of the candidates.

Contact Details:

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